

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS WELL LOG ELECTRIC LOGS ☒ X WATER SANDS LOCATION INSPECTED SUB REPORT/abd

980923 Lease # for 4-74870;

DATE FILED MARCH 13, 1997

LAND. FEE & PATENTED

STATE LEASE NO.

PUBLIC LEASE NO. ~~U-74870~~

INDIAN

DRILLING APPROVED: MARCH 25, 1997

UTU-77234

SPUDDED IN: 4/29/97

COMPLETED: 11.22.97 POW PUT TO PRODUCING:

INITIAL PRODUCTION 101 BBL, 90 mcf, 0 BBL

GRAVITY API

GOR 1.0

PRODUCING ZONES. 4400-5770' GRRV

TOTAL DEPTH: 5700'

WELL ELEVATION: 5120' KB

DATE ABANDONED:

FIELD: MONUMENT BUTTE

UNIT:

COUNTY: DUCHESNE

WELL NO TAR SANDS FEDERAL 7-33

API NO. 43-013-31860

LOCATION 1943 FNL FT FROM (N) (S) LINE. 2009 FEL

FT FROM (E) (W) LINE. SW NE

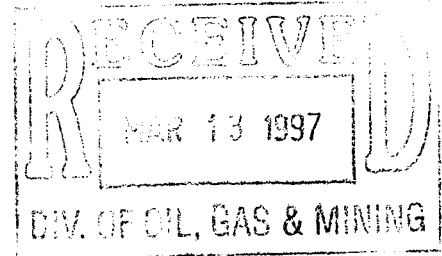
1/4 - 1/4 SEC. 33

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
				8S	17E	33	INLAND PRODUCTION

QUATERNARY	Star Point	Chinle	Molas
Alluvium	Wahweap	Shinarump	Manning Canyon
Lake beds	Masuk	Moenkopi	Mississippian
Pleistocene	Colorado	Sinbad	Humbug
Lake beds	Sego	PERMIAN	Brazer
TERTIARY	Buck Tongue	Kaibab	Pilot Shale
Pliocene	Castlegate	Coconino	Madison
Salt Lake	Mancos	Cutler	Leadville
Oligocene	Upper	Hoskinnini	Redwall
Norwood	Middle	DeChelly	DEVONIAN
Eocene	Lower	White Rim	Upper
Duchesne River	Emery	Organ Rock	Middle
Uinta	Blue Gate	Cedar Mesa	Lower
Bridger	Ferron	Halgaite Tongue	Ouray
Green River	Frontier	Phosphoria	Elbert
Garden quich	Dakota	Park City	McCracken
Garden quich 2	Burro Canyon	Rico (Goodridge)	Aneth
Point 3	Cedar Mountain	Supai	Simonson Dolomite
X marker	Buckhorn	Wolfcamp	Sevy Dolomite
Y marker	JURASSIC	CARBON I FEROUS	North Point
Wash DGRK	Morrison	Pennsylvanian	SILURIAN
Blacks	Salt Wash	Oquirrh	Laketown Dolomite
Blum	San Rafeal Gr.	Weber	ORDOVICIAN
Castle Peak	Summerville	Morgan	Eureka Quartzite
Basal Carb NDE	Bluff Sandstone	Hermosa	Pogonip Limestone
Almy	Curtis		CAMBRIAN
Paleocene	Entrada	Pardox	Lynch
Current Creek	Moab Tongue	Ismay	Bowman
North Horn	Carmel	Desert Creek	Tapeats
CRETACEOUS	Glen Canyon Gr.	Akah	Ophir
Montana	Navajo	Barker Creek	Tintic
Mesaverde	Kayenta		PRE - CAMBRIAN
Price River	Wingate	Cane Creek	
Blackhawk	TRIASSIC		



March 12, 1997



Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

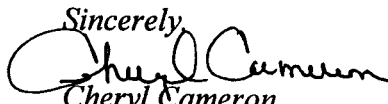
ATTENTION: Ed Forsman
Wayne Bankert

RE: Tar Sands Federal #7-33
Tar Sands Federal 11-33
Tar Sands Federal 14-33

Gentlemen,

Enclosed is the original and two copies (each,) of the Application For Permit To Drill, for the above referenced locations. Copies will also be submitted to the State of Utah.

Please contact me in the Vernal Branch office (801) 789-1866 (P.O. Box 790233, Vernal, UT, 84079,) if you have any questions, or need additional information.

Sincerely,

Cheryl Cameron
Regulatory Compliance Specialist

cc:

Mike Hebertson
State of Utah
Division of Oil, Gas & Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. U-74870	
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input type="checkbox"/> SINGLE <input type="checkbox"/> MULTIPLE <input type="checkbox"/> WELL <input checked="" type="checkbox"/> WELL <input type="checkbox"/> OTHER <input type="checkbox"/> ZONE <input type="checkbox"/> ZONE <input type="checkbox"/>			6. IF INDIAN, ALOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Inland Production Company			7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P.O. Box 790233 Vernal, UT 84079 Phone: (801) 789-1866			8. FARM OR LEASE NAME Tar Sands Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At Surface SW/NE At proposed Prod. Zone 1943' FNL & 2009' FEL			9. WELL NO. #7-33	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 11.6 Miles southeast of Myton, Utah			10. FIELD AND POOL OR WILDCAT Monument Butte	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1943'		16. NO. OF ACRES IN LEASE 2879.94	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 33, T8S, R17E	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 1453'		17. NO. OF ACRES ASSIGNED TO THIS WELL 40	12. County Duchesne	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5112.8' GR		19. PROPOSED DEPTH 6500'	13. STATE UT	
22. APPROX. DATE WORK WILL START* 2nd Quarter 1997				

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	300'	120 sx
7 7/8"	5 1/2"	15.5#	TD	400 sx followed by 330 sx
				See Detail Below

The actual cement volumes will be calculated off of the open hole logs, plus 15% excess.

SURFACE PIPE - Premium Plus Cement, w/ 2% CaCl₂/1/4# Flocele/skWeight: 14.8 PPG YIELD: 1.37 Cu Ft/sk H₂O Req: 6.4 Gal/sk

LONG STRING - Lead: Hibond 65 Modified

Weight: 11.0 PPG YIELD: 3.00 Cu Ft/sk H₂O Req: 18.08 Gal/sk

Tail: Premium Plus Thixotropic

Weight: 14.2 PPG YIELD: 1.59 Cu Ft/sk H₂O Req: 7.88 Gal/sk

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone.

If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Brad Mecham TITLE District Manager DATE 3/6/97

(This space for Federal or State office use)

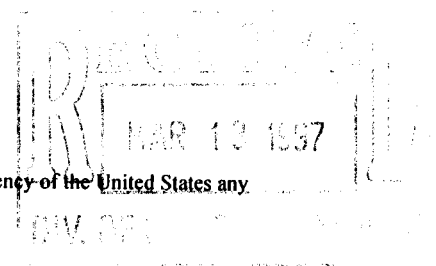
PERMIT NO. 43-013-31860APPROVAL DATE 3/25/97

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



N00°03'W - G.L.O.
(Basis of Bearings)
2646.55' (Measured)

E 1/4 Sec 29
1910 Brass Cap
Pile of Stones

T8S, R17E, S.L.B.&M.

S89°45'33"W 2641.61' (Meas.)

S89°48'46"W 2632.10' (Meas.)

1910
Brass Cap
Pile of Stones

1910
Brass Cap
Pile of Stones

1910
Brass Cap
Pile of Stones

TAR SANDS FEDERAL #7-33
Elev. Ungraded Ground = 5115'

33

2009'

1943'

2005'

211'

1910 Brass Cap
1.5' High, Small
Pile of Stones

N00°04'37"W 2647.76' (Meas.)




N00°02'W - (G.L.O.)

T8S

T9S

N89°58'E - (G.L.O.)

LEGEND:

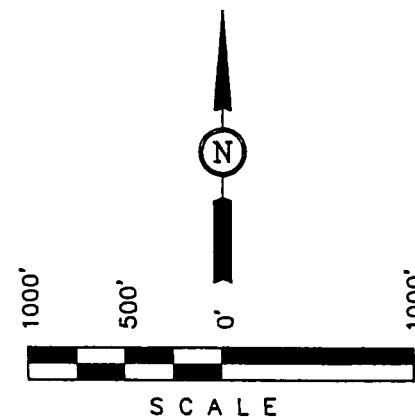
-  = 90° SYMBOL
-  = PROPOSED WELL HEAD.
-  = SECTION CORNERS LOCATED.

INLAND PRODUCTION CO.

Well location, TAR SANDS FEDERAL #7-33,
located as shown in the SW 1/4 NE 1/4 of
Section 33, T8S, R17E, S.L.B.&M. Duchesne
County, Utah.

BASIS OF ELEVATION

BENCH MARK LOCATED IN THE SW 1/4 OF SECTION
29, T8S, R17E, S.L.B.&M. TAKEN FROM THE MYTON SE
QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE
QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED
STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL
SURVEY. SAID ELEVATION IS MARKED AS BEING 5229
FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.

Robert L. Gray
REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING

85 SOUTH 200 EAST - VERNAL, UTAH 84078

(801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 11-20-96	DATE DRAWN: 12-03-96
PARTY J.F. M.C. D.R.B.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE INLAND PRODUCTION CO.	

**INLAND PRODUCTION COMPANY
TAR SANDS FEDERAL #7-33
SW/NE SECTION 33, T8S, R17E
DUCHESNE COUNTY, UTAH**

TEN POINT WELL PROGRAM

1. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Uinta	0' - 3050'
Green River	3050'
Wasatch	6600'

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Green River Formation 3050' - 6600' - Oil

4. PROPOSED CASING PROGRAM

8 5/8", J-55, 24# w/ ST&C collars; set at 300' KB (New)

5 1/2" J-55, 15.5# w/ LT&C collars/ set at TD (New)

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

The operators minimum specifications for pressure control equipment are as follows:

A 8" Series 900 Annular Bag type BOP and a 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOPS's will be checked daily.

(See Exhibit F)

6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

The well will be drilled with fresh water through the Uinta Formation. From the top of the Green River Formation @ 3050' \pm , to TD, a fresh water/polymer system will be utilized. If necessary to control formation fluids, the system will be weighted with the addition of bentonite gel, and if conditions warrant, barite. Clay inhibition will be achieved with additions of 5 lb. - 8 lb. Barrel of DAP (Di-Ammonium Phosphate, commonly known as fertilizer). Typically, this fresh water/polymer system will contain Total Dissolved Solids (TDS) of less than 3000 PPM. Neither potassium chloride or chromates will be utilized in the fluid system. The anticipated mud weight is 8.4 ppg and weighted as necessary for gas control.

7. **AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

8. **TESTING, LOGGING AND CORING PROGRAMS:**

No drill stem testing has been scheduled for this well. It is anticipated at this time that the logging will consist of a Dual Induction Laterolog, Gamma Ray/Caliber from TD to base of surface casing @ 300' \pm , and a Compensated Neutron-Formation Density Log. Logs will run from TD to 3500' \pm . The cement bond log will be run from PBTD to cement top. An automated mud logging system will be utilized while drilling to monitor and record penetration rate, and relative gas concentration, in the fluid system.

9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

The anticipated maximum bottom hole pressure is 2000 psi. It is not anticipated that abnormal temperatures will be encountered; nor that any other abnormal hazards such as H₂S will be encountered in this area.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

It is anticipated that the drilling operations will commence the second quarter of 1997, and take approximately six days to drill.

**INLAND PRODUCTION COMPANY
TAR SANDS FEDERAL #7-33
SW/NE SECTION 33, T8S, R17E
DUCHESNE COUNTY, UTAH**

THIRTEEN POINT WELL PROGRAM

1. EXISTING ROADS

See attached Topographic Map "A"

To reach Inland Production Company well location site Tar Sands Federal #7-33 located in the SW 1/4 NE 1/4 Section 33, T8S, R17E, S.L.B. 7 M. Duchesne County, Utah:

Proceed westerly out of Myton, Utah along Highway 40 - 1.5 miles \pm to the junction of this highway and Utah State Highway 53; proceed southeasterly along Utah State Highway 10.1 miles on an existing dirt road to the east, proceed easterly 1.0 mile to the beginning of the proposed access road, to be discussed in item #2.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 53 ends, thereafter the roads are constructed with existing materials and gravel. The highways are maintained by Utah State road crews. All other roads are maintained by County Crews.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads required for access during the drilling, completion and production phase will be maintained at the standards required by the BLM or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal.

2. PLANNED ACCESS ROAD

See Topographic Map "B".

The planned access road leaves the existing location (Tar Sands Federal #6-33) described in Item #1 in the SE1/4 NW1/4 Section 33, T8S, R17E, S.L.B., and proceeds in a northeasterly direction approximately .3 miles \pm , to the proposed location site.

The planned access road will be an 18' crown road (9' either side of the centerline) with drainage ditches along either side of the proposed road where is determined necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area. The maximum grade will be less than 8%.

The existing two track road will be upgraded to the same conditions as the access road.

TAR SANDS FEDERAL #7-33

There will be no culverts required along this access road. There will be no water turnouts constructed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

3. LOCATION OF EXISTING WELLS

There are three (3) producing, one (1) injection, Inland Production wells, one (1) unknown P&A well, and one (1) producing Dalon well, within a one (1) mile radius of this well. See Exhibit D".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery the well pad will be surrounded by a dike of sufficient capacity to contain at minimum the entire contents of the largest tank within the facility battery.

Tank batteries will be built to BLM specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted Desert Tan. All facilities will be painted within six months of installation.

5. LOCATION AND TYPE OF WATER SUPPLY

Inland Production Company has purchased a 3" water connection with Johnson Water District to supply the Monument Butte oil field. Johnson Water District has given permission to Inland Production Company to use water from our system for the purpose of drilling and completing the Tar Sands Federal #7-33. A temporary line may be used for water transportation from our existing supply line, from Johnson Water District (See Exhibit "G,") or water for this well will be trucked from Inland Production Company's water supply line located at the Gilsonite State #7-32 (SW/NE Sec. 32, T8S, R17E), or the Monument Butte Federal #5-35 (SW/NW Sec. 35, T8S, R16E), or the Travis Federal #15-28 (SW/SE Sec. 28, T8S, R16E). See Exhibit "C".

There will be no water well drilled at this site.

6. SOURCE OF CONSTRUCTION MATERIALS

See Location Layout Sheet - Exhibit "E".

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

7. METHODS FOR HANDLING WASTE DISPOSAL

7. **METHODS FOR HANDLING WASTE DISPOSAL**

See Location Layout Sheet - Exhibit "E".

A small reserve pit (80 X 40 X 8' deep, or less) will be constructed from native soil and clay materials. A water processing unit will be employed to continuously recycle the drilling fluid as it is used, returning the fluid component to the drilling rig's steel tanks. The reserve pit will primarily receive the processed drill cuttings (wet sand, shale & rock) removed from the wellbore. Any drilling fluids which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed by the water recycling unit and then returned to the steel rig tanks. All drilling fluids will be fresh water based containing DAP (Di-Ammonium Phosphate, commonly known as fertilizer), typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be utilized in the reserve pit.

All completion fluids, frac gels, etc., will be contained in steel tanks and hauled away to approved commercial disposal, as necessary.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined in storage tanks. Inland requests temporary approval to transfer the produced water to Inland's nearby waterflood, for reinjection into the waterflood reservoirs via existing approved injection wells. Within 90 days of first production, a water analysis will be submitted to the Authorized Officer, along with an application for approval of this, as a permanent disposal method.

8. **ANCILLARY FACILITIES**

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. **WELL SITE LAYOUT**

See attached Location Layout Sheet - Exhibit "E".

The reserve pit will be located on the north between stakes 4 & 5.

No flare pit will be used at this location.

The stockpiled topsoil (first six (6) inches) will be stored on the northeast corner, between stakes 5 & 7.

Access to the well pad will be from the west, between stakes 2 & 3.

The northeast corner will be rounded, and a water diversion shall be created from the northeast corner to the west end of the location.

A diversion dam shall be built on the east side of the location. A diversion ditch shall be constructed from the east side to the southwest end of the location.

Fencing Requirements

All pits will be fenced according to the following minimum standards:

- a) A 39 inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be cemented and/or braced in such a manner to keep tight at all times.
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

10. PLANS FOR RESTORATION OF SURFACE

a) *Producing Location*

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be re contoured to the approximated natural contours. The reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

When the drilling and completion phase ends, reclamation of unused disturbed areas on the well pad/access road no longer needed for operations, such as cut slopes, and fill areas will be accomplished by grading, leveling and seeding as recommended by the Authorized Officer. The seed mixture will be per B.L.M. and stated in the conditions of approval.

b) *Dry Hole Abandoned Location*

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the B.L.M. will attach the appropriate surface rehabilitation conditions of approval.

11. SURFACE OWNERSHIP - Bureau Of Land Management

12. OTHER ADDITIONAL INFORMATION

- a) Inland Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Inland is to immediately stop work that might further disturb such materials, and contact the Authorized Officer.
- b) Inland Production will control noxious weeds along rights-of-way for roads, pipelines, well sites, or other applicable facilities. On B.L.M. administered land it is required that a Pesticide Use Proposal shall be submitted, and given approval, prior to the application of herbicides or other possible hazardous chemicals.
- c) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without B.L.M. authorization. However, if B.L.M. authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

The Archaeological Cultural Resource Survey is attached.

Inland Production Company requests that a pipeline ROW be granted to the Tar Sands Federal #7-33, from the Tar Sands Federal #6-33, for a 3" poly gas line and a 4" poly return line. Both lines will be run on surface, adjacent to road-way. A temporary line may be used for water transportation, prior to gas transportation, from our existing supply line from Johnson Water District. See Exhibit "G."

Additional Surface Stipulations

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations. Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. Inland Production is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

Hazardous Material Declaration

Inland Production Company guarantees that during the drilling and completion of the Tar Sands Federal #7-33, we will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Inland also guarantees that during the drilling and completion of the Tar Sands Federal #7-33, we will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Inland Production Company or a contractor employed by Inland Production shall contact the B.L.M. office at (801) 789-1362, 48 hours prior to construction activities.

The B.L.M. office shall be notified upon site completion prior to moving on the drilling rig.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

Name: Brad Mecham
Address: P.O. Box 1446 Roosevelt, Utah 84066
Telephone: (801) 722-5103

Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of Tar Sands Federal #7-33 SW/NE Section 33, Township 8S, Range 17E: Lease U-74870, Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

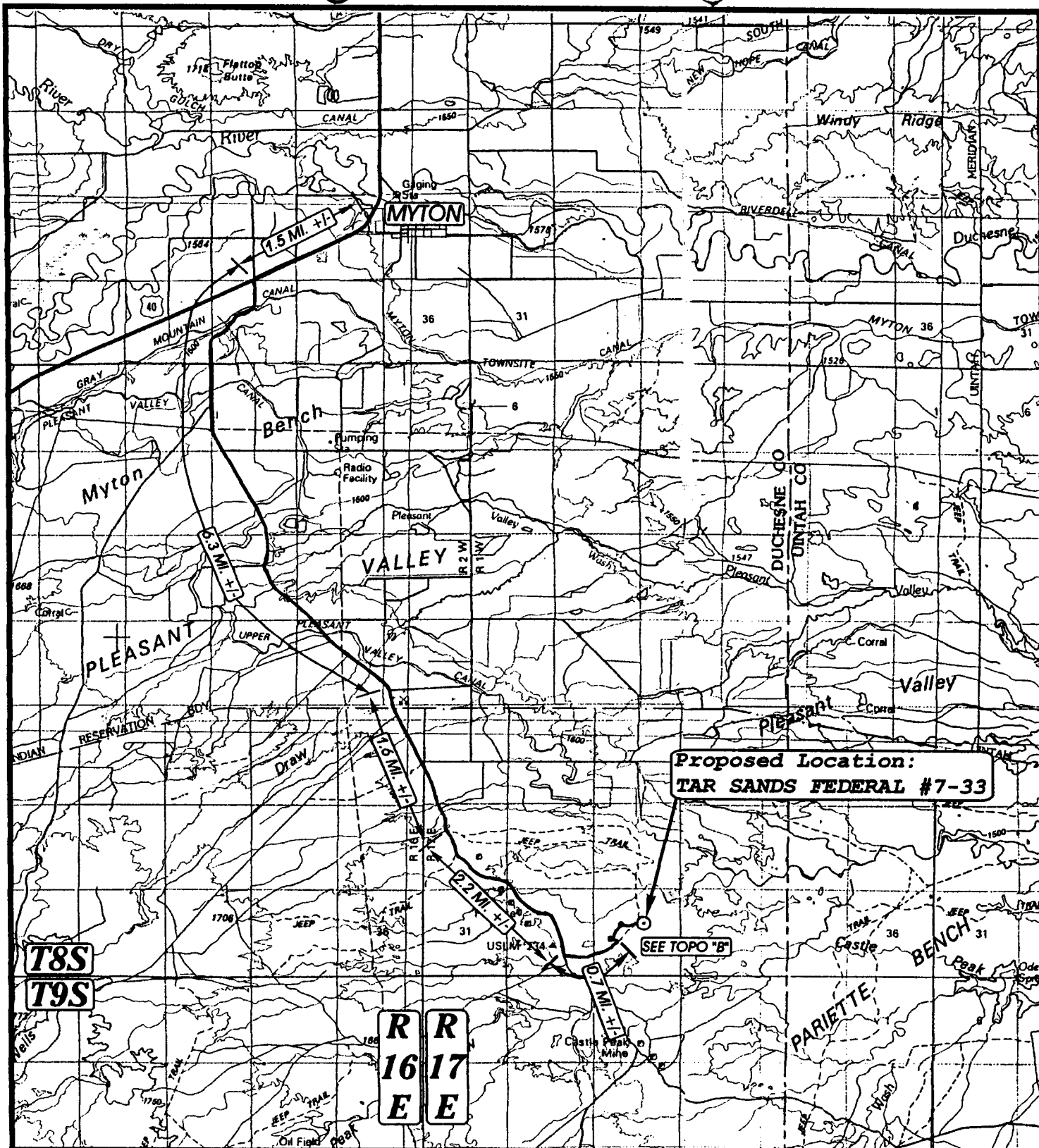
I hereby certify that I, or persons under my direct supervision have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Inland Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

3-10-97

Date



Brad Mecham
District Manager



UELS

**TOPOGRAPHIC
MAP "A"**

Date Drawn: 12-03-96

Drawn By: D.COX

Revised: 3-3-97 D.COX

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

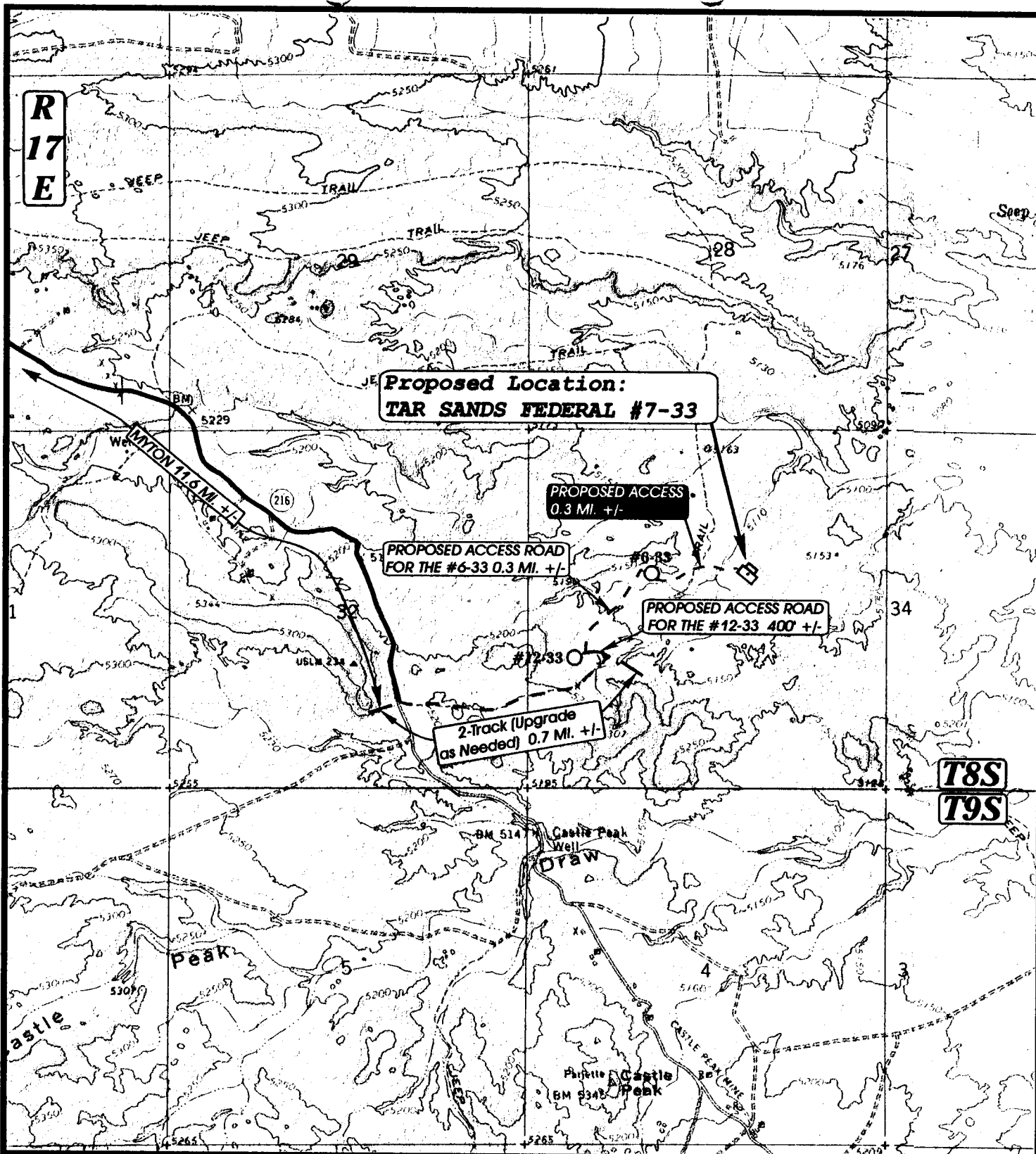


INLAND PRODUCTION CO.

TAR SANDS FEDERAL #7-33

SECTION 33, T8S, R17E, S.L.B.&M.

1943' FNL 2009' FEL



UELS

**TOPOGRAPHIC
MAP "B"**

DATE: 12-3-96

Drawn by: D.COX

Revised: 3-3-97 D.COX

UTAH ENGINEERING & LAND SURVEYING

85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

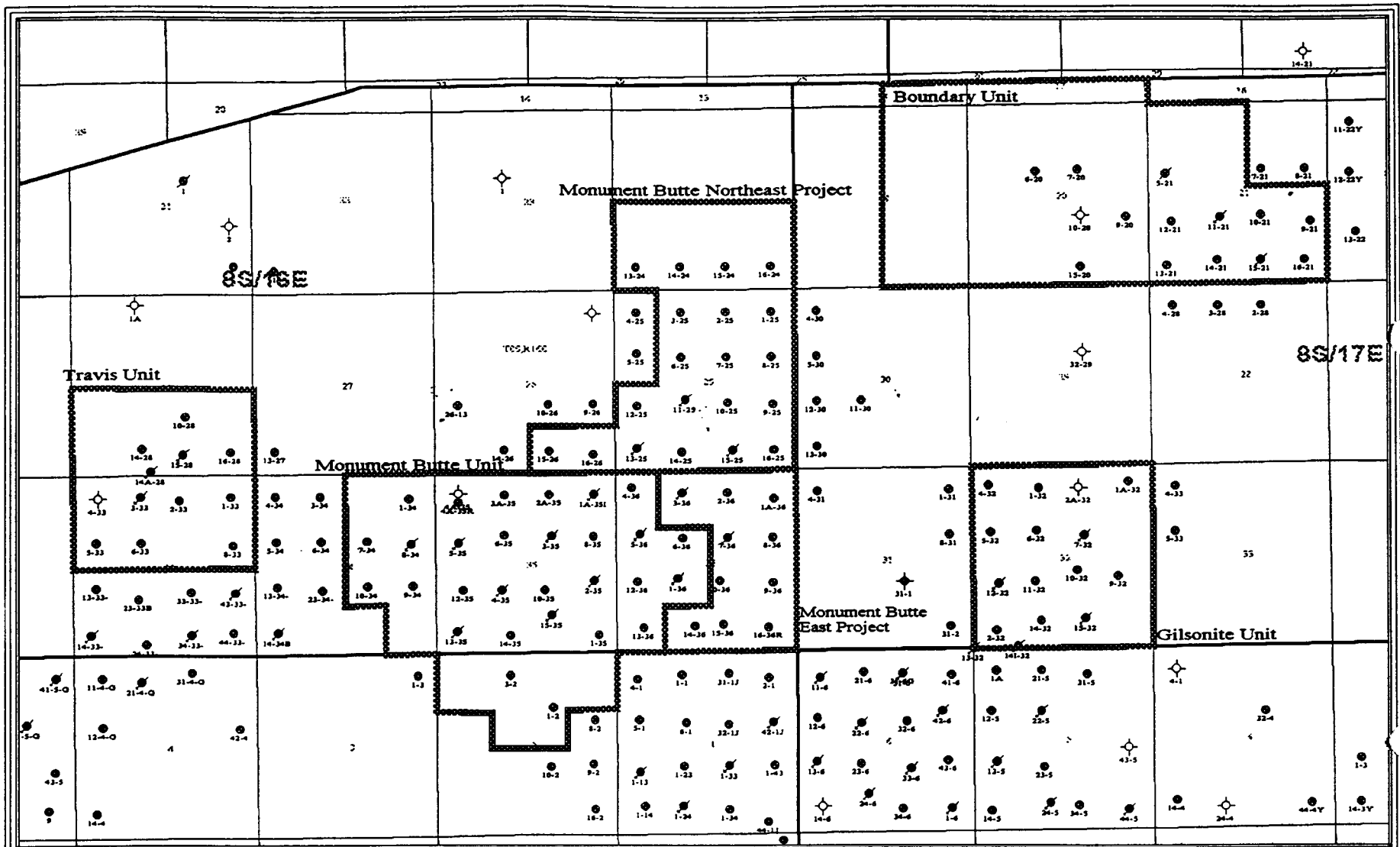


SCALE: 1" = 2000'

INLAND PRODUCTION CO.

**TAR SANDS FEDERAL #7-33
SECTION 33, T8S, R17E, S.L.B.&M.
1943' FNL 2009' FEL**


EXHIBIT "C"



INJECTOR STATIONS:

Travis Federal #15-28
 Monument Butte Federal #5-35
 Gilsonite State #7-32





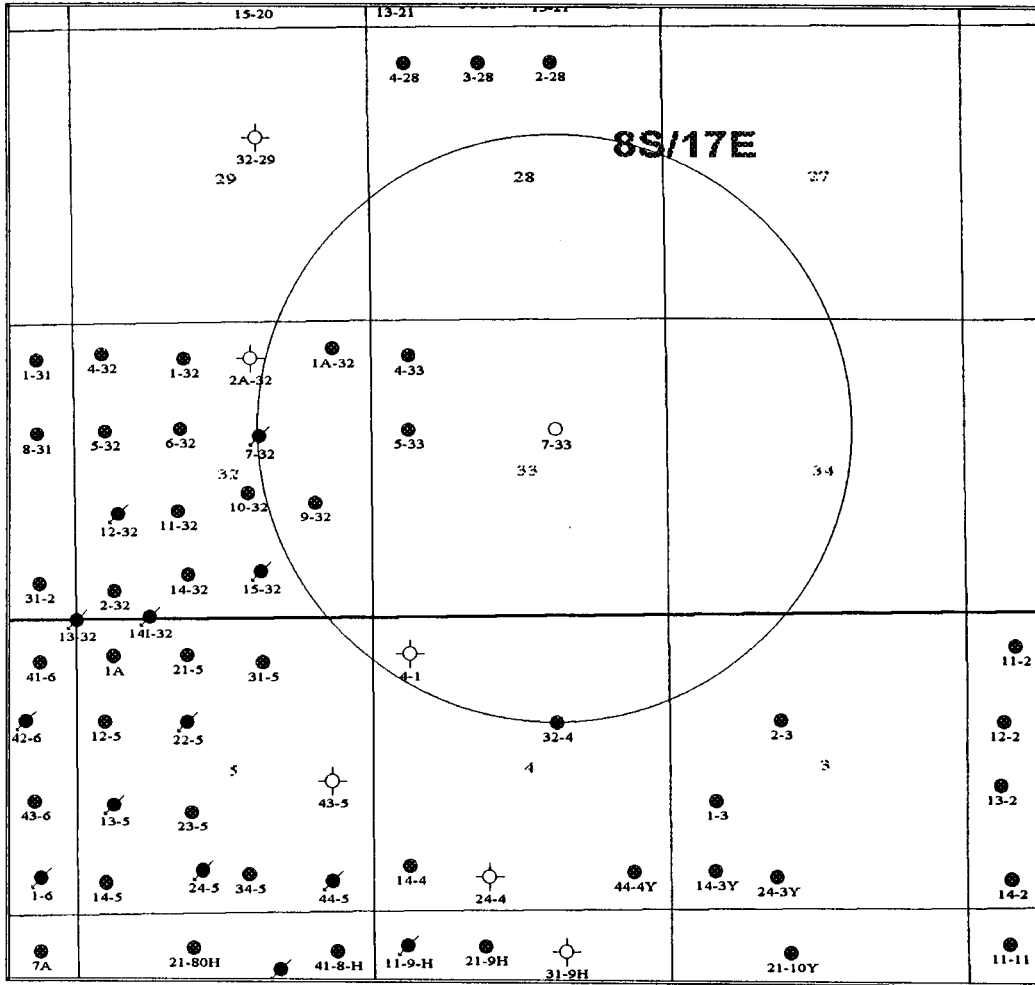
47517" Sheet Size 1:500
 Durango, Colorado 81302
 Phone: (303) 292-0900

Regional Area

Durango County, Utah

Date: 1/28/96 J.A.

EXHIBIT "D"



Inland
47517th Street, Suite 1500
Denver, Colorado 80202
Phone: (303) 292-0900

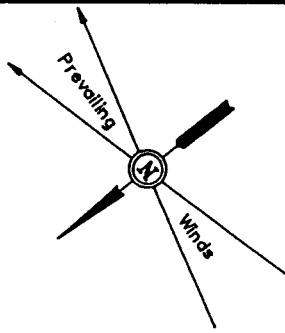
One Mile Radius
Tar Sands Federal #7-33
Duchene County, Utah

Date: 2/1/97

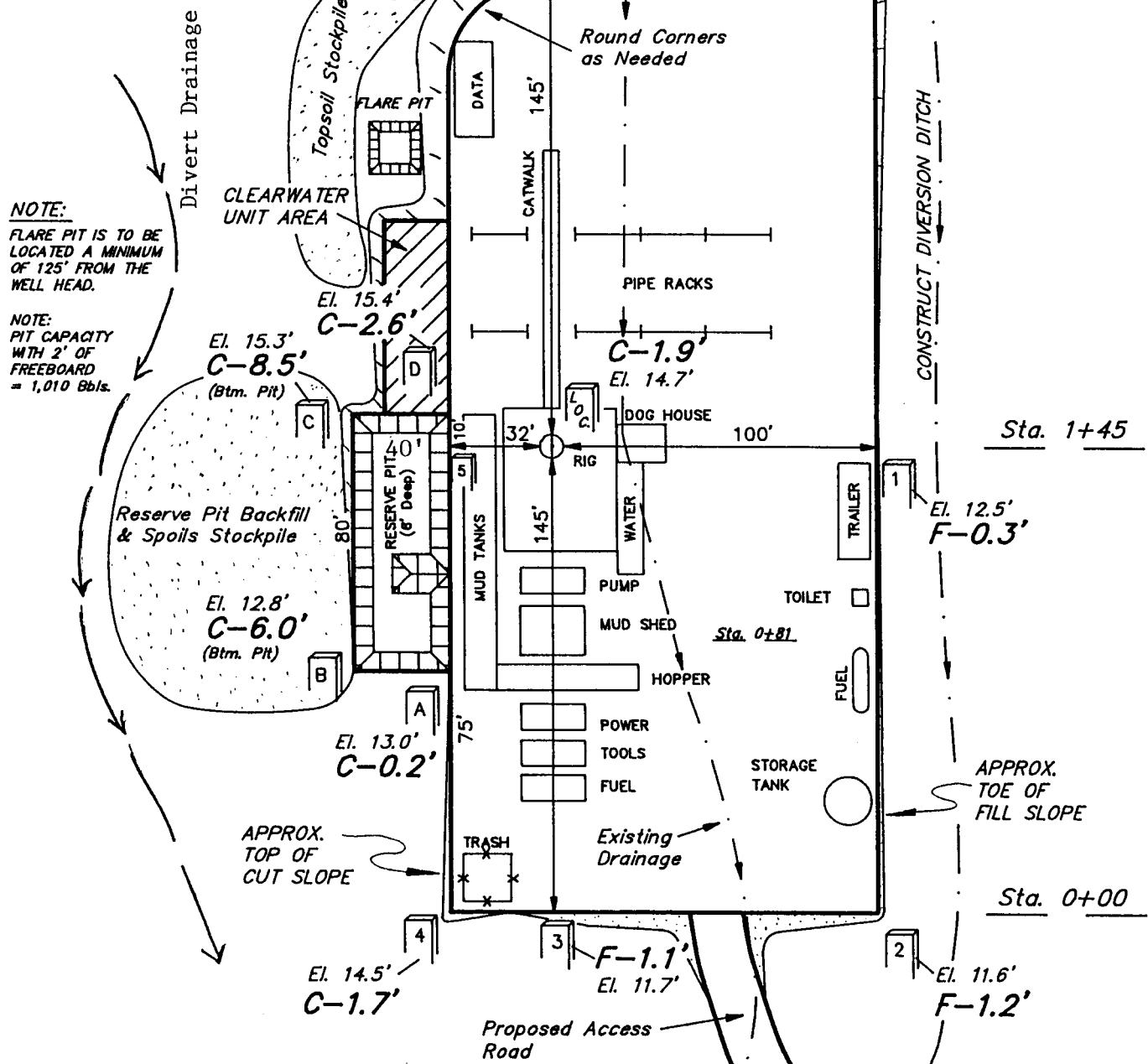
INLAND PRODUCTION CO.

LOCATION LAYOUT FOR

TAR SANDS FEDERAL #7-33
SECTION 33, T8S, R17E, S.L.B.&M.
1943' FNL 2009' FEL



SCALE: 1" = 50'
DATE: 12-03-96
Drawn By: D.R.B.



Elev. Ungraded Ground at Location Stake = 5114.7'

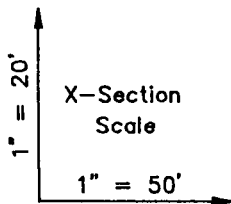
Elev. Graded Ground at Location Stake = 5112.8'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

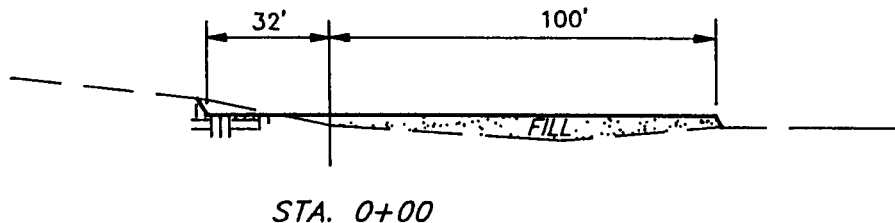
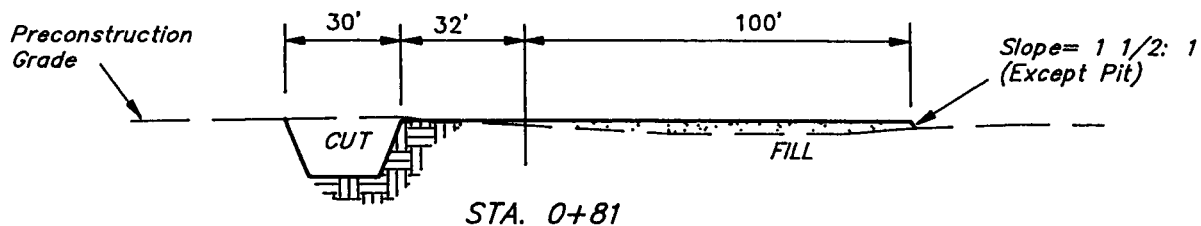
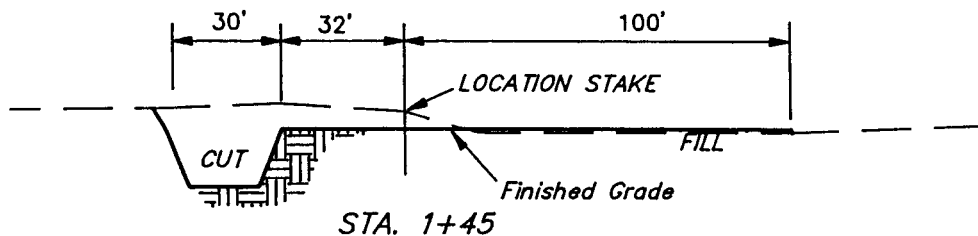
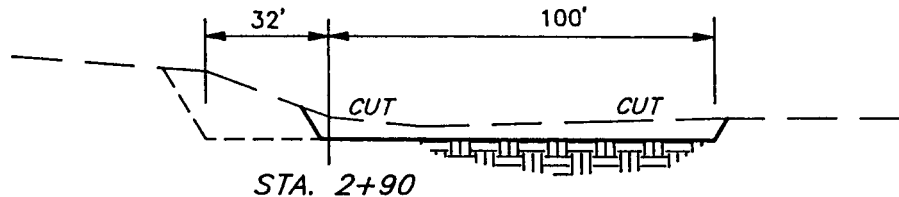
INLAND PRODUCTION CO.

TYPICAL CROSS SECTIONS FOR

TAR SANDS FEDERAL #7-33
SECTION 33, T8S, R17E, S.L.B.&M.
1943' FNL 2009' FEL



DATE: 12-03-96
Drawn By: D.R.B.



APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 750 Cu. Yds.
Remaining Location	= 1,350 Cu. Yds.
TOTAL CUT	= 2,100 CU.YDS.
FILL	= 1,090 CU.YDS.

EXCESS MATERIAL AFTER
5% COMPACTION = 950 Cu. Yds.

Topsoil & Pit Backfill = 950 Cu. Yds.
(1/2 Pit Vol.)

EXCESS MATERIAL After = 0 Cu. Yds.
Reserve Pit is Backfilled &
Topsoil is Re-distributed

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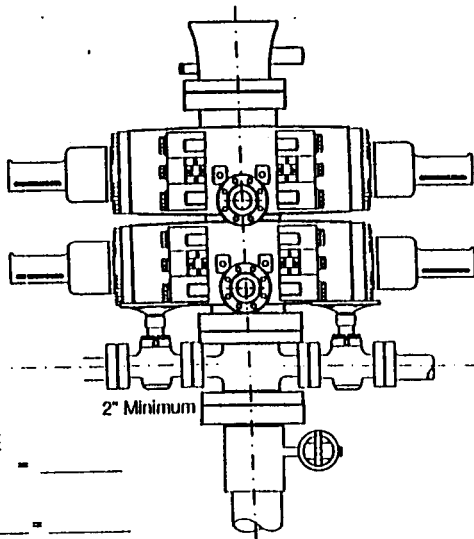
2-M SYSTEM

HAM TYPE B.O.P.

Make:

Size:

Model:



GAL TO CLOSE

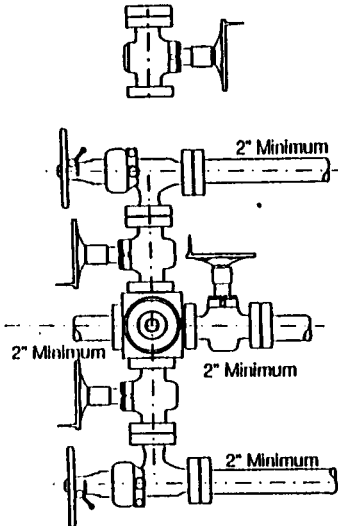
Annular BOP = _____

Ramtype BOP

____ Rams x _____ = _____

= _____ Gal.

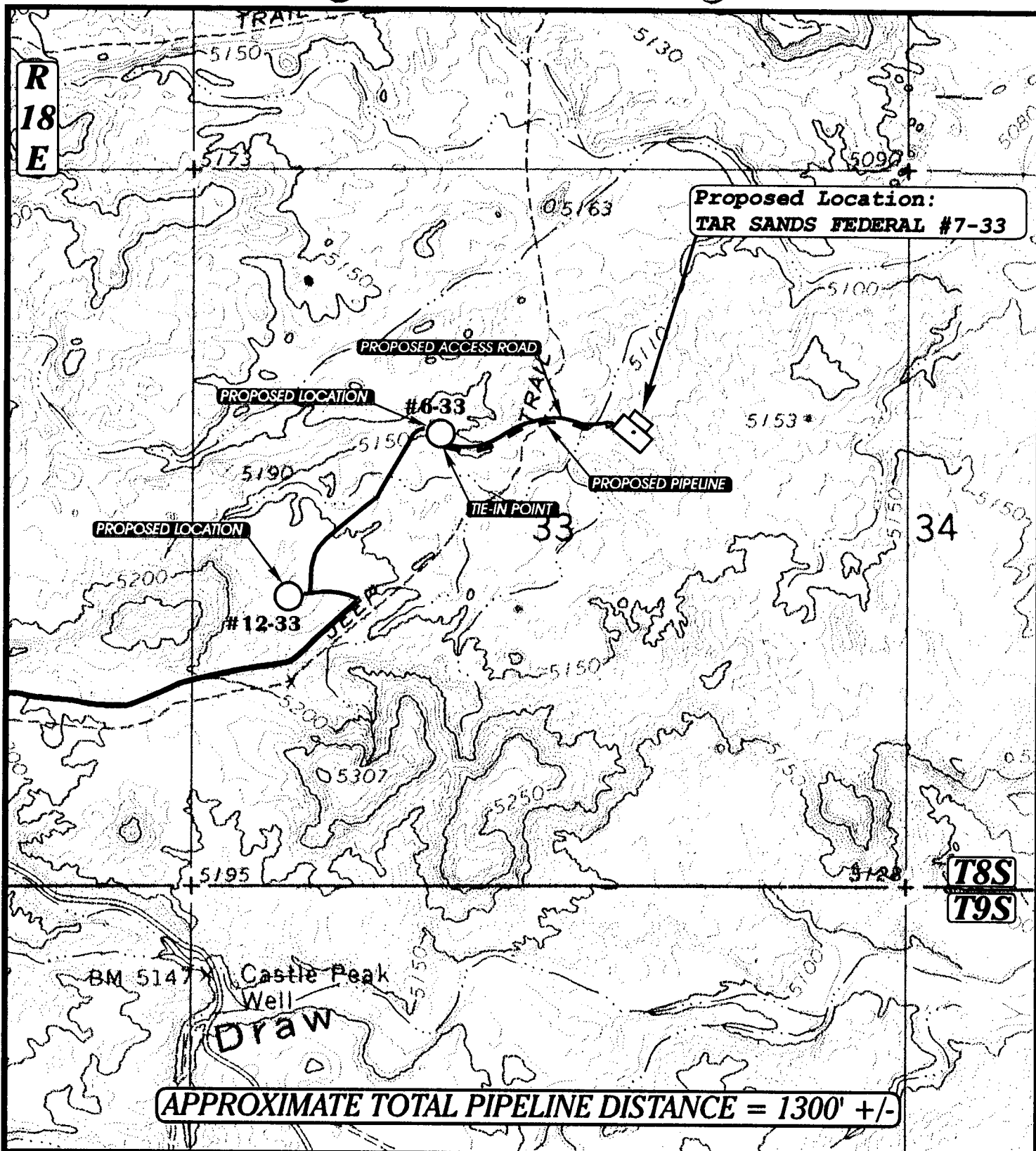
_____ x 2 = _____ Total Gal.



Rounding off to the next higher

increment of 10 gal. would require

_____ Gal. (total fluid & nitro volume)



**TOPOGRAPHIC
MAP "G"**

UELS

- Existing Pipeline
- - - Proposed Pipeline



SCALE: 1" = 1000'

INLAND PRODUCTION CO.

**TAR SANDS FEDERAL #7-33
SECTION 33, T8S, R17E, S.L.B.&M.**

DATE: 12-3-96

Drawn by: D.COX

Revised: 3-3-97 D.COX

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

**CULTURAL RESOURCE SURVEY OF
TAR SANDS FEDERAL WELL #7-33
PIPELINES AND ACCESS ROADS, DUCHESNE COUNTY, UTAH**

by

Heather M. Weymouth
Senior Archaeologist

Prepared for:

Inland Production Company
P.O. Box 1446
Roosevelt, Utah 84066

Prepared by:

Sagebrush Consultants, L.L.C.
3670 Quincy Avenue, Suite 203
Ogden, Utah 84403

Under Authority of Cultural Resources Use Permit No. 96UT54630

and

Under Authority of Utah State Antiquities Permit No. U-97-SJ-0029b

Archaeological Report No. 922-01

January 25, 1996

INTRODUCTION

In December 1996, Inland Production Company (Inland) of Roosevelt, Utah requested that Sagebrush Consultants, L.L.C. (Sagebrush) conduct a cultural resources inventory of Inland's Tar Sands Federal Well #7-33 and its associated pipeline and access road corridor in Duchesne County, Utah.

The proposed well is located in T. 8S., R. 17E., S. 33 on USGS 7.5' Quadrangle Myton SE, Utah (1964) (Figure 1). Footages for the well location are as follows: #7-33 (1943 FNL 2008 FEL). The well pad, pipeline and access road lies on lands controlled by the Bureau of Land Management (BLM). The project was carried out by Heather M. Weymouth and Richard A. Fields on December 31, and January 5, 1996 under authority of Cultural Resources Use Permit No. 96UT54630 and Utah State Antiquities Permit No. U-97-SJ-0029b.

A file search for previously recorded cultural resource sites and paleontological localities located near the current project area was conducted through Blaine Phillips, Vernal District BLM Archaeologist, on November 6, 1996 at the BLM, Vernal District Office. An additional file search was conducted by Heather M. Weymouth on November 6, 1996 at the Division of State History, Utah State Historic Preservation Office, Salt Lake City.

More than 40 previous cultural resources projects have been conducted in the area of the current project. Due to the large number of projects conducted in this area, individual project descriptions will not be listed. However, seven cultural resources sites and three paleontological locality are listed as being located near the current project area. Following is a brief description of these sites and localities:

Cultural Resource Sites

Site 42Dc349. This site, located in a small arroyo north of Castle Peak Draw, is a sparse lithic scatter consisting of decortication flakes, biface manufacturing flakes, and one utilized flake. This site was recommended ELIGIBLE to the National Register of Historic Places (NRHP).

Site 42Dc353. This site, located in desert pavement surfaces on top of an east-west ridge north of Castle peak Draw, consists of a lithic scatter and temporary campsite. This site was recommended ELIGIBLE to the NRHP.

Site 42Dc372. This site, located on a low terrace above an intermittent drainage north of Castle Peak Draw, consists of a sparse lithic scatter. This site was recommended NOT eligible to the NRHP.

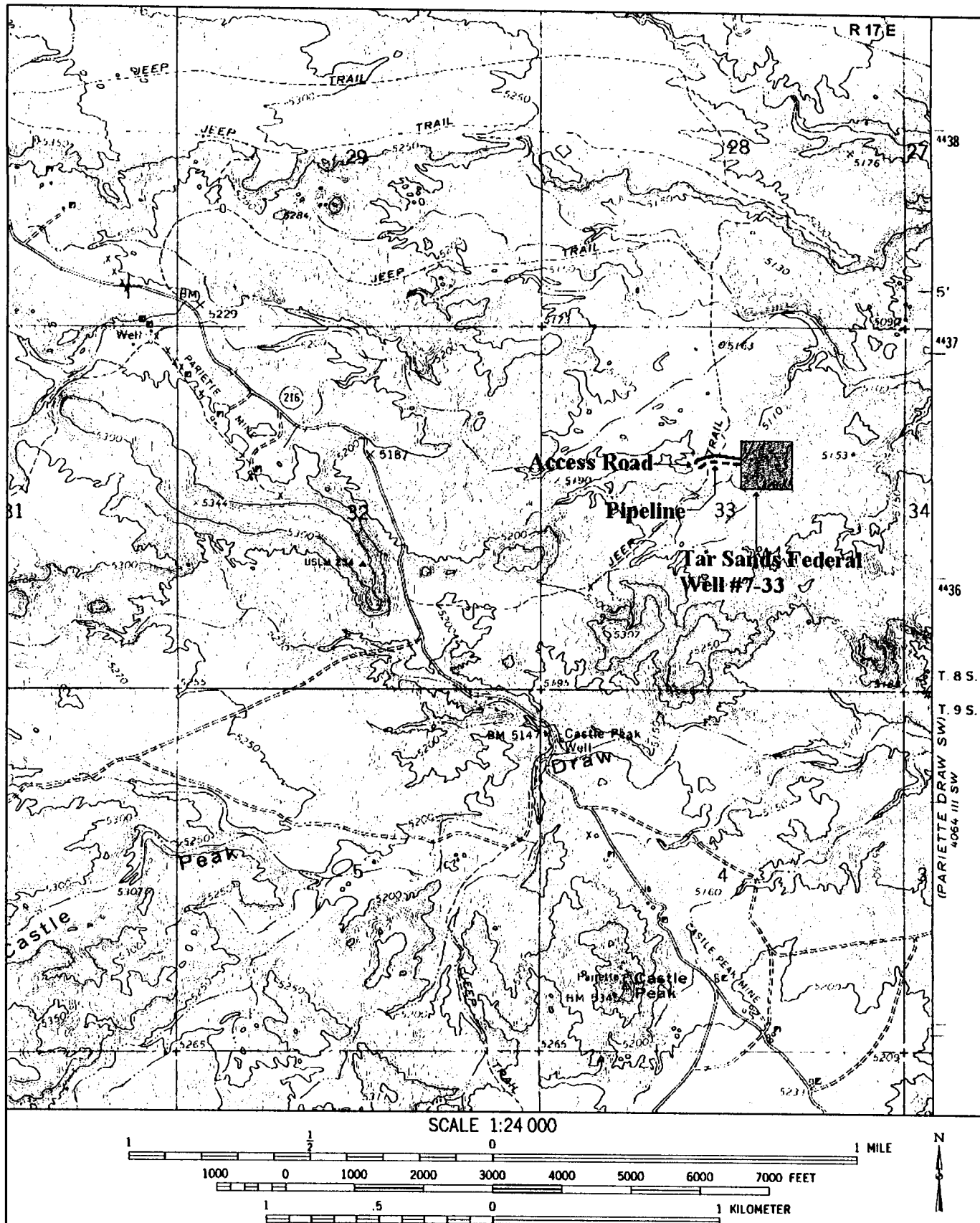


Figure 1. Location of Tar Sands Federal Well #7-33, associated pipeline and access road. Taken from: USGS 7.5' Quadrangle Myton SE, Utah (1964).

Site 42Dc404. This site, located on the north side of a small draw approximately 0.5 miles north of Castle Peak, consists of a historic trash scatter. This site was recommended NOT eligible to the NRHP.

Site 42Dc545. This site, located on a sand dune at the junction of a small draw and a main stream channel of Pariette bench, is a lithic scatter consisting of primary and secondary reduction flakes, one biface, one awl, and one edge-modified cobble. This site was recommended ELIGIBLE to the NRHP.

Site 42Dc935. This site, located in the bottom of Castle Peak Draw at the base of a sandstone ridge, consists of the remaining portion of the Castle Peak Well. The well consists of a reinforced concrete cap placed over a well shaft dug into the bedrock and sediments of Castle Peak Draw. This site was recommended NOT eligible to the NRHP.

Site 42Dc936. This site, located along the base of the east side of Castle Peak, consists of the remaining portion of the historic Castle Peak Gilsonite Mining complex. The mining complex consists of numerous remnant features associated with gilsonite mining at the turn-of-the-century. This site was recommended ELIGIBLE to the NRHP.

Paleontological Localities

Locality 42DC0123V. This locality, which lies in a tributary drainage just north of Castle Peak Draw, consists of a sparse scattering of small fossil vertebrate fragments. This site has been evaluated as non-significant.

Locality 42DC296V. This locality, which lies just east of the Pariette Mine, consists of two loci of fossil material. The first loci consists of Middle Eocene turtle fragments. The second loci consists of the highly weathered skull and tooth fragments of a medium-sized mammal. The fossil material at both loci is eroding out of the Middle Eocene Uinta Formation.

Locality 42DC297V. This locality, which lies just east of the Pariette Mine, consists of three loci of fossil material. The first loci consists of scattered Eocene age turtle fragments. The second loci consists of concretions containing plant impressions. The third loci consists of fragments of Eocene age turtle shell. The fossil material at both loci is eroding out of the Middle Eocene Uinta Formation.

The NRHP was consulted prior to the commencement of fieldwork for the present project. No NRHP sites were found in the vicinity of the current project area.

ENVIRONMENT

The project area is located northeast of Castle Peak, approximately ten miles south-southeast of Myton, Utah. The area is characterized by low rolling tablelands dissected by deep drainage, heavily eroded plains and low eroding bedrock outcrops of sandstone. Soils in the area vary from fine light tan to medium brown silty sands to light clay sediments in some of the heavily eroded areas. The surface sediments in this area consist of an interfingering of fluvial deposits and thinly bedded Pleistocene lake bed deposits. Desert pavement surfaces are common. Sediments contain a moderate amount of Pleistocene gravels and many heavily eroded areas and drainage cuts exhibit exposures of fossiliferous Eocene age Uinta Formation. The elevation of the survey area ranges from 5110 to 5130 feet (ft) a.s.l. Vegetation in the area covers approximately 30 percent of the ground surface and is composed of predominantly shadscale community species. Noted species include four-winged saltbrush, greasewood, shadscale, prickly pear cactus, rabbitbrush, Indian paintbrush, winterfat, Indian ricegrass and a variety of forbs and low grasses. The nearest permanent water source is Pariette Wash located approximately four miles northeast of the project area. Many seasonally flowing drainage and washes are present within the immediate project area. These seasonal water sources were, no doubt, the primary source of water in this area historically. Natural disturbance in the area is primarily in the form of arroyo cutting and sheetwash erosion. Cultural disturbance includes a number of improved and unimproved oil field roads, producing oil wells and oil field pipelines which are located within the boundaries of the current project area.

METHODOLOGY

The project area consists of one 40,469 m² (10 acre) parcel of land (201-by-201 m [660-by-660 ft]) centered on the proposed well head, and an associated pipeline and access road connecting the well location to pre-existing access roads. The well pad was inventoried by Heather M. Weymouth and Richard A. Fields walking parallel transects spaced no more than 15 m apart. The access road and pipeline, which totaled 213 m (700 ft) each in length were walked in two parallel transects spaced 10 m (33 ft) apart to cover a corridor width of 30 m (100 ft) each. The area surveyed during this project (including well pad, pipeline and access road) totaled 5.34 hectares (13.2 acres).

RESULTS

No cultural resources sites were located during this survey. However, two paleontological localities (42DC298VP and 42DC299V,) were identified within the current survey area (Figure 2). No additional sites, isolated artifacts nor paleontological localities were found as a result of this inventory.

Locality 42DC298VP

Locality 42DC298VP, located on a low bench east of the Pariette Mine, consists of a scatter of petrified wood and a number of unusual concretions containing fossil plant and turtle weathering out of small bedrock outcrops adjacent to Tar Sands Federal Well #7-33. The fossil material at this loci is eroding out of the Middle Eocene Uinta Formation.

Locality 42DC299V

Locality 42DC299V, located on a low knoll east of the Pariette Mine, consists of one *Trionyx* turtle, one possible *Baena* turtle and fragments of one *Echmatemys* turtle weathering out of small bedrock outcrops adjacent to Tar Sands Federal Well #7-33. The fossil material at this loci is eroding out of the Middle Eocene Uinta Formation.

RECOMMENDATIONS

No cultural resources sites were located during this survey. However, two paleontological localities (42DC298VP-42DC299V) were recorded during this inventory of Tar Sands Federal Well #7-33. No additional sites nor paleontological localities were located during the survey.

The significance of individual paleontological localities is based upon criteria defined by the U.S. Forest Service and the Bureau of Land Management (Raup 1987:122). This classification system is based upon the scientific value of the fossil material located, its context, state of preservation and uniqueness. A field classification system (as suggested by the Bureau of Land Management and Raup (1987:174)) defines the paleontological sensitivity of fossil localities:

Class 1. Critical - reference locality for holotype or critical paleontological material, or any type section of geological strata needed for future study. All vertebrate fossil sites fall within this category.

Class 2. Significant - any locality that produces rare, well-preserved, or critical fossils usable for taxonomic, evolutionary, stratigraphic, paleoenvironmental, or paleoecological studies.

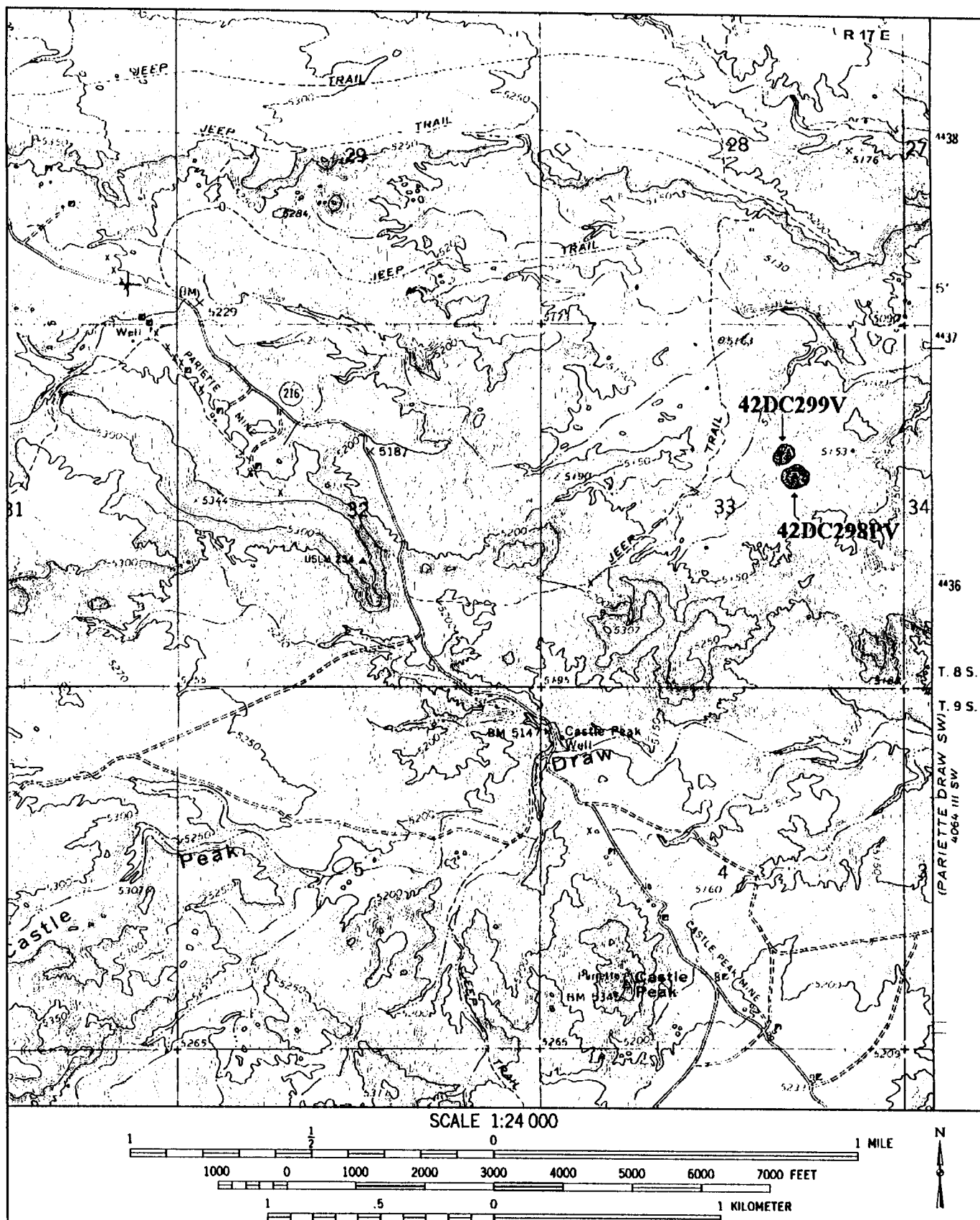


Figure 2. Location of paleontological localities identified during survey of Tar Sands Federal Well #7-33. Taken from: USGS 7.5' Quadrangle Myton SE, Utah (1964).

Class 3. Important - any locality that produces common, abundant fossils useful for stratigraphic or population variability studies.

Class 4. Insignificant - any locality with poorly preserved, common, or stratigraphically unimportant fossil material.

Class 5. Unimportant - any locality intensively surveyed and determined to be of minimal scientific interest.

Based upon the above criteria localities 42DC298VP is recognized as **CRITICAL** and locality 42DC299V is recognized as **IMPORTANT** to the general paleontology of the Uintah Basin and the State of Utah.

Locality 42DC298VP

Rock outcrops in the project area are of the Middle Eocene Uinta Formation, known for its important fossil vertebrate fauna of mammal, turtle, crocodilian remains. Occasionally, fossil fish, plant, and animal tracks are also found in this formation. The fossil materials identified at locality 42DC298VP are considered Class 1: **CRITICAL** paleontological resources.

All of the fossil material found is located southeast of the staked well pad construction boundary for Tar Sands Federal Well #7-33, therefore, it is assumed that the fossil material will not be affected by the construction. It is recommended that construction activities be confined to the currently staked area and not expand out of that area to the southeast of the proposed well pad.

Locality 42DC299V

Rock outcrops in the project area are of the Middle Eocene Uinta Formation, known for its important fossil vertebrate fauna of mammal, turtle, and crocodilian remains. Occasionally, fossil fish, plant, and animal tracks are also found in this formation. The fossil materials identified at locality 42DC299V are considered Class 3: **IMPORTANT** paleontological resources.

The fossil turtle material associated with locality 42DC299V will be affected by construction of the proposed well location for Tar Sands Federal Well #7-33. However, due to the relative abundance of fossil turtle shell in the vicinity, this will not have a significant impact upon paleontological resources in general.

This investigation was conducted with techniques which are considered to be adequate for evaluating cultural and paleontological resources which could be adversely affected by the project. However, should such resources be discovered during construction, a report should be made immediately to the BLM District Archaeologist, Vernal District Office, Vernal, Utah.

REFERENCES CITED

Raup, D. M. (Committee Chairman)

1987 *Paleontological Collecting*. National Academy of Science Press, Washington D. C.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/13/97

API NO. ASSIGNED: 43-013-31860

WELL NAME: TAR SANDS FEDERAL 7-33
OPERATOR: INLAND PRODUCTION COMPANY (N5160)

PROPOSED LOCATION:

SWNE 33 - T08S - R17E
SURFACE: 1943-FNL-2009-FEL
BOTTOM: 1943-FNL-2009-FEL
DUCHESNE COUNTY
MONUMENT BUTTE FIELD (105)

LEASE TYPE: FED
LEASE NUMBER: U - 74870

PROPOSED PRODUCING FORMATION: GRRV

INSPECT LOCATION BY: / /

TECH REVIEW	Initials	Date
-------------	----------	------

Engineering	✓	
-------------	---	--

Geology	✓	
---------	---	--

Surface	✓	
---------	---	--

RECEIVED AND/OR REVIEWED:

✓ Plat
✓ Bond: Federal ☒ State ☐ Fee ☐
(Number 4488944)
☒ Potash (Y/N)
☒ Oil shale (Y/N)
✓ Water permit
(Number GILSONITE STATE 732)
☒ RDCC Review (Y/N)
(Date: _____)

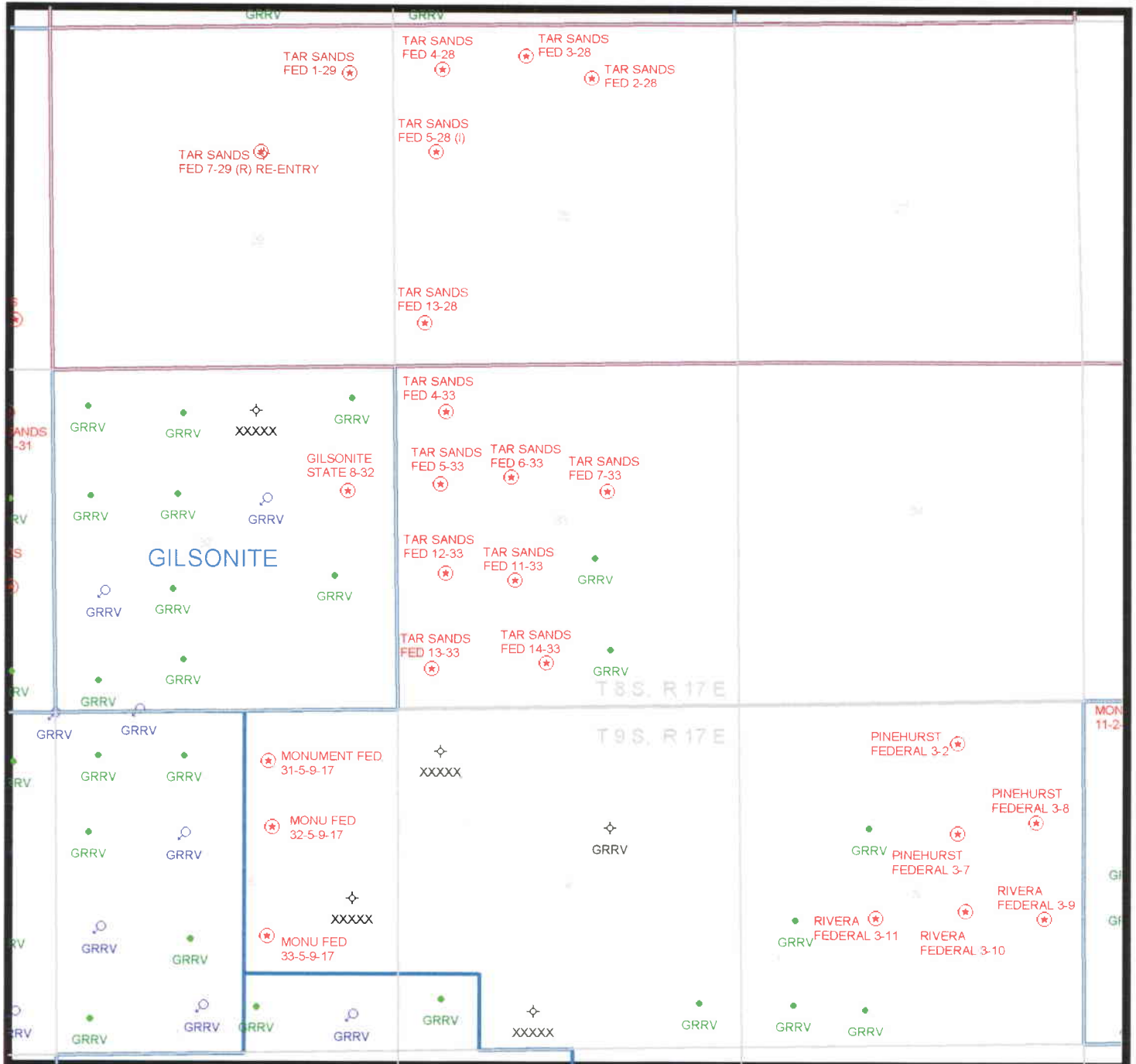
LOCATION AND SITING:

___ R649-2-3. Unit: _____
✓ R649-3-2. General.
___ R649-3-3. Exception.
___ Drilling Unit.
Board Cause no: _____
Date: _____

✓ COMMENTS: Cultural Resource Survey 1/25/96-

STIPULATIONS: _____

OPERATOR: INLAND (N5160)
FIELD: MONUMENT BUTTE (105)
SECTION: 33, T8S, R17E
COUNTY: DUCHESNE
SPACING: UAC R649-3-2



PREPARED:
DATE: 13-MAR-97



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 25, 1997

Inland Production Company
P.O. Box 790233
Vernal, Utah 84079

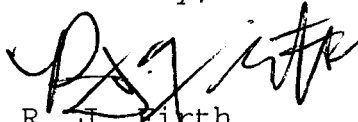
Re: Tar Sands Federal 7-33 Well, 1943' FNL, 2009' FEL, SW NE,
Sec. 33, T. 8 S., R. 17 E., Duchesne County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-31860.

Sincerely,


R. J. Firth
Associate Director

lwp

Enclosures

cc: Duchesne County Assessor
Bureau of Land Management, Vernal District Office

Operator: Inland Production Company
Well Name & Number: Tar Sands Federal 7-33
API Number: 43-013-31860
Lease: U-74870
Location: SW NE Sec. 33 T. 8 S. R. 17 E.

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact R. J. Firth (801)538-5274 or Mike Hebertson at (801) 538-5333.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-74870-76241	
1b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Inland Production Company		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P.O. Box 790233 Vernal, UT 84079		8. FARM OR LEASE NAME Tar Sands Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At Surface SW/NE At proposed Prod. Zone 1943' FNL & 2009' FEL		9. WELL NO. #7-33	
10. FIELD AND POOL OR WILDCAT Monument Butte		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 33, T8S, R17E	
12. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 11.6 Miles southeast of Myton, Utah		13. COUNTY AND STATE Duchesne UT	
14. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1943'		15. NO. OF ACRES IN LEASE 2879.94	
16. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 1453'		17. NO. OF ACRES ASSIGNED TO THIS WELL 40	
18. ELEVATIONS (Show whether DF, RT, GR, etc.) 5112.8' GR		19. APPROX. DATE WORK WILL START* 2nd Quarter 1997	

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	300'	120 sx
7 7/8"	5 1/2"	15.5#	TD	400 sx followed by 330 sx
				See Detail Below

The actual cement volumes will be calculated off of the open hole logs, plus 15% excess.

SURFACE PIPE - Premium Plus Cement, w/ 2% CaCl₂, 1/4# Flocele/sk

Weight: 14.8 PPG YIELD: 1.37 Cu Ft/sk H₂O Req: 6.4 Gal/sk

LONG STRING - Lead: Hibond 65 Modified

Weight: 11.0 PPG YIELD: 3.00 Cu Ft/sk H₂O Req: 18.08 Gal/sk

Tail: Premium Plus Thixotropic

Weight: 14.2 PPG YIELD: 1.59 Cu Ft/sk H₂O Req: 7.88 Gal/sk

RECEIVED
MAR 12 1997

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone.

If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Brad Meham TITLE District Manager DATE 3/6/97

(This space for Federal or State office use)

PERMIT NO. **NOTICE OF APPROVAL** APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

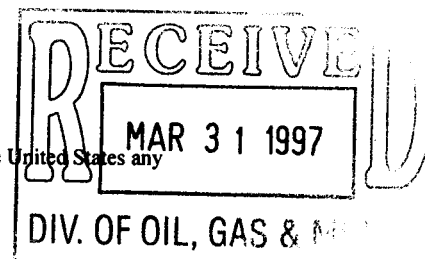
[Signature]

ACTING Assistant Field Manager
Mineral Resources

MAR 24 1997

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



U+080-777-199

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company

Well Name & Number: Tar Sands Fed. 7-33

API Number: 43-013-31860

Lease Number: U-76421

Location: SWNE Sec. 33 T. 8S R. 17E

NOTIFICATION REQUIREMENTS

- | | | |
|---------------------------------|---|---|
| Location Construction | - | at least forty-eight (48) hours prior to construction of location and access roads. |
| Location Completion | - | prior to moving on the drilling rig. |
| Spud Notice | - | at least twenty-four (24) hours prior to spudding the well. |
| Casing String and Cementing | - | at least twenty-four (24) hours prior to running casing and cementing all casing strings. |
| BOP and Related Equipment Tests | - | at least twenty-four (24) hours prior to initiating pressure tests. |
| First Production Notice | - | within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days. |

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative by the operator to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report **ALL** water shows and water-bearing sands to Tim Ingwell of this office **prior to setting the next casing string or requesting plugging orders**. Faxed copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a **2M** system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

If conductor pipe is set it will be cemented to surface. If drive pipe is used it will be pulled prior to cementing surface casing.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the usable water zone identified at ± 447 ft. or by setting the surface casing at ± 501 ft. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

The Gamma Ray and Induction Logs need to be pulled from TD to the Surface Shoe.

A cement bond log (CBL) will be run from the production casing shoe to **TOP OF CEMENT** if the surface casing is set at ± 501 ft. or it will be run to **Surface** if the surface casing is set at ± 300 ft. and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal District Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours **prior** to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approval or notification is necessary, please contact one of the following individuals:

Wayne Bankert (801) 789-4170
Petroleum Engineer

Ed Forsman (801) 789-7077
Petroleum Engineer

Jerry Kenczka (801) 789-1190
Petroleum Engineer

BLM FAX Machine (801) 781-4410

EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spend solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

CONDITIONS OF APPROVAL
FOR THE SURFACE USE PROGRAM OF THE
APPLICATION FOR PERMIT TO DRILL

-Access roads and surface disturbing activities will conform to standards outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, (1989).

-All vehicle travel will be confined to existing access road rights-of-way.

-It is recommended that if this well becomes a producing well, that the pumping unit be equipped with a multicylinder engine or equipped with a muffler to reduce noise levels in the area.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: INLAND PRODUCTION

Well Name: TAR SANDS FEDERAL 7-33

Api No. 43-013-31860

Section: 33 Township: 8S Range: 17E County: DUCHESNE

Drilling Contractor

Rig #

SPUDDED:

Date 4/29/97

Time

How DRY HOLE

Drilling will commence

Reported by D. INGRAM

Telephone #

Date: 5/1/97 Signed: JLT

✓

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

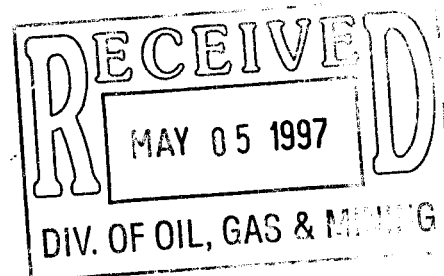
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas well <input type="checkbox"/> Other	5. Lease Designation and Serial No. U-76241
2. Name of Operator Inland Production Company	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. Box 790233 Vernal, UT 84079 Phone No. (801) 789-1866	7. If unit or CA, Agreement Designation Tar Sands Federal
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SW/NE 1943' FNL & 2009' FEL Sec. 33, T8S, R17E	8. Well Name and No. #7-33
	9. API Well No. 43-013-31860
	10. Field and Pool, or Exploratory Area Monument Butte
	11. County or Parish, State Duchesne, UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing repair	<input type="checkbox"/> Water Shut-off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Surface Hole Spud</u>	<input type="checkbox"/> Dispose Water
		<small>(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)</small>

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Drilled 12 1/4" hole w/ Leon Ross Rathole Rig to 180'. Prepare to run 8 5/8" csg & cmt on 4/30/97.

SPUD SURFACE HOLE ON 4/28/97



14. I hereby certify that the foregoing is true and correct
Signed Cheryl Cameron Title Regulatory Compliance Specialist Date 4/29/97

(This space of Federal or State office use.)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly to make to any department of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

FORM APPROVED

Budget Bureau No. 1004-0135

Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas well ☐ Other

2. Name of Operator

Inland Production Company

3. Address and Telephone No.

P.O. Box 790233 Vernal, UT 84079 Phone No. (801) 789-1866

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**SW/NE 1943' FNL & 2009' FEL
Sec. 33, T8S, R17E**

5. Lease Designation and Serial No.

U-76241

6. If Indian, Allottee or Tribe Name

7. If unit or CA, Agreement Designation

Tar Sands Federal

8. Well Name and No.

#7-33

9. API Well No.

43-013-31861⁰

10. Field and Pool, or Exploratory Area

Monument Butte

11. County or Parish, State

Duchesne, UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
- ☒ Subsequent Report
- ☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
- ☐ Recompletion
- ☐ Plugging Back
- ☐ Casing repair
- ☐ Altering Casing
- ☒ Other Surface Hole Spud
- ☐ Change of Plans
- ☐ New Construction
- ☐ Non-Routine Fracturing
- ☐ Water Shut-off
- ☐ Conversion to Injection
- ☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Drilled 12 1/4" hole w/ Leon Ross Rathole Rig to 180'. Prepare to run 8 5/8" csg & cmt on 4/30/97. Finished drlg to 305'. Run 290.48' of 8 5/8" 24# J-55 csg. Pump 5 bbls dye wtr & 10 bbls gel wtr. Cmt w/ 120 sx Prem + w/ 2% gel, 2% CaCl + 1/4#/sk flocele mixed @ 14.8 ppg w/ 1.37 ft/sk yield. Good returns, w/ est 8 bbls cmt to surface.

SPUD SURFACE HOLE ON 4/28/97.

14. I hereby certify that the foregoing is true and correct

 Signed *Cheryl Cameron*
Cheryl Cameron
Title **Regulatory Compliance Specialist**Date **5/1/97**

(This space of Federal or State office use.)

Approved by _____

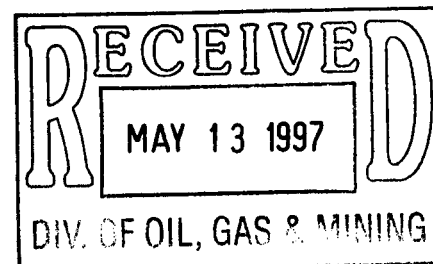
Title _____

Date _____

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly to make to any department of the United States any false, fictitious or fraudulent statements or representations as

to any matter within its jurisdiction.

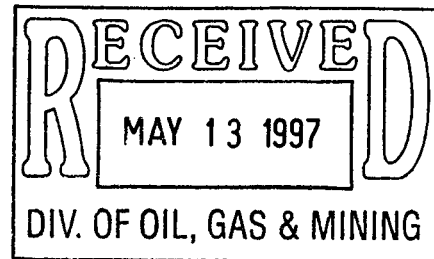
***See Instruction on Reverse Side**



May 9, 1997

Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

State of Utah
Division of Oil Gas & Mining
1594 WN Temple Suite 1210
P O Box 145801
Salt Lake City, Utah 84114-5801



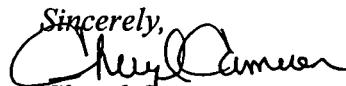
ATTENTION: Ed Forsman
Gentlemen,

Enclosed are the original's and two copies (each) of the Sundry Notices and Reports on Wells, for the following locations. Copies will also be submitted to the State of Utah.

Tar Sands Federal #13-33
Tar Sands Federal #7-33
Tar Sands Federal #6-33
Tar Sands Federal #12-33
MBFNE #6-26

Monument Butte Federal #2-34
Monument Butte Federal #5-34
MBFNE #13-26
MBFNE #1-26
MBFNE #2-26

Please contact me in the Vernal Branch office (801) 789-1866 (P.O. Box 790233, Vernal, UT, 84079,) if you have any questions, or need additional information.

Sincerely,

Cheryl Cameron
Regulatory Compliance Specialist

Attachment "A"

Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

RE: Regulation Variance for continued drilling operations for Air Drilling with Union, Rig #7.

Tar Sands Federal #7-33
SW/NE Sec. 30, T8S, R17E
Lease No. U-74870

- (1) Inland Production Company requests that the mud type and program variance be granted for the following:

MUD PROGRAM

MUD PROGRAM

Surface - 320'
320' - 4200'
4200' - TD

MUD TYPE

Air
Air/Mist & Foam
The well will be drilled with fresh water through the Green River Formation @ 4200' \pm , to TD, a fresh water/polymer system will be utilized. If necessary to control formation fluids, the system will be weighted with the addition of bentonite gel, and if conditions warrant, barite. Clay inhibition will be achieved with additions or by adding DAP (Di-Ammonium Phosphate, commonly known as fertilizer.) Typically, this fresh water/polymer system will contain Total Dissolved Solids (TDS) of less than 3000 PPM. Neither potassium chloride or chromates will be utilized in the fluid system. The anticipated mud weight is 8.4 ppg and weighted as necessary for gas control.

- (2) Inland Production Company requests that a variance to regulations requiring a straight run blooie line. Inland proposes that the blooie line to be 35' long.
- (3) Inland Production Company requests that a variance to regulations requiring an automatic ignitor or continuous pilot light on the blooie line. Inland requests authorization to ignite as needed, and the flowline at 80'.

Page 2

- (4) Inland Production Company requests that the spark arrest, exhaust, or water cooled exhaust be waived under the Special Drilling Operations of Onshore Order #2.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

FORM APPROVED

Budgeted Bureau No. 1004-0135

Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas well ☐ Other

2. Name of Operator

Inland Production Company

3. Address and Telephone No.

P.O. Box 790233 Vernal, UT 84079 Phone No. (801) 789-1866

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**SW/NE
Sec. 33, T8S, R17E**

5. Lease Designation and Serial No.

U-74870

6. If Indian, Allottee or Tribe Name

7. If unit or CA, Agreement Designation

8. Well Name and No.

Tar Sands Federal #7-33

9. API Well No.

43-013-31860

10. Field and Pool, or Exploratory Area

Monument Butte

11. County or Parish, State

Duchesne, UT

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
- ☒ Subsequent Report
- ☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
- ☐ Recompletion
- ☐ Plugging Back
- ☐ Casing repair
- ☐ Altering Casing
- ☐ Other Regulation Variance
- ☒ Change of Plans
- ☐ New Construction
- ☐ Non-Routine Fracturing
- ☐ Water Shut-off
- ☐ Conversion to Injection
- ☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Please refer to Attachment "A" for Regulation Variance for drilling operations w/ Union, Rig #7.

14. I hereby certify that the foregoing is true and correct

Signed

Cheryl Cameron

Title

Regulatory Compliance Specialist

Date

10/3/97

(This space of Federal or State office use.)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly to make to any department of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

***See Instruction on Reverse Side**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

U-76241

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

NA

8. Well Name and No.

TAR SANDS FED 7-33

9. API Well No.

~~43-013-31861~~ **43-013-31860**

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE COUNTY, UTAH

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

475 17TH STREET, SUITE 1500, DENVER, COLORADO 80202 (303) 292-0900

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1943 FNL 2009 FEL SW/NE Section 33, T08S R17E

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other **Weekly Status**

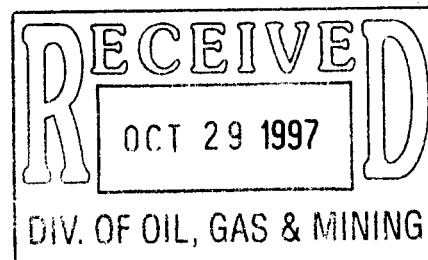
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

WEEKLY STATUS REPORT FOR WEEK OF 10/9/97 - 10/15/97

MIRU Union #7. Drl & set mouse hole & rat hole. Test lines, valves, rams & manifold to 2000 psi; csg to 1500 psi. PU BHA & TIH. Install head rubber, blow hole dn. Drl plug, cmt & GS. Drl 315' - 5726'.



14. I hereby certify that the foregoing is true and correct

Signed

Shannon Smith

Title

Engineering Secretary

Date

10/23/97

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: UTAH DOGM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.
U-76241

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
NA

8. Well Name and No.
TAR SANDS FED 7-33

9. API Well No.
~~43-013-31861~~ **43-013-31860**

10. Field and Pool, or Exploratory Area
MONUMENT BUTTE

11. County or Parish, State
DUCHESNE COUNTY, UTAH

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

475 17TH STREET, SUITE 1500, DENVER, COLORADO 80202 (303) 292-0900

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1943 FNL 2009 FEL SW/NE Section 33, T08S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent
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☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment
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☐ Altering Casing
☒ Other Weekly Status

☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

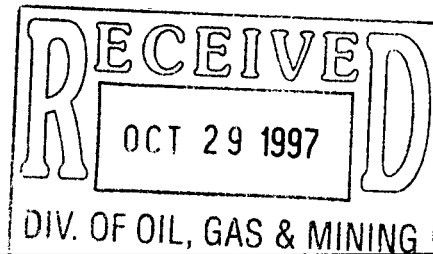
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

WEEKLY STATUS REPORT FOR WEEK OF 10/16/97 - 10/22/97

Drilled 7-7/8" hole w/Union, Rig #7 from 5726' - 5900'.

Run 5-1/2" GS, 1 jt 5-1/2" csg (42'), 5-1/2" FC, 137 jt 5-1/2", 15.5#, J-55, LT & C csg (5878'). RD Casers. Csg set @ 5876'. RU Halliburton. C&C. Pmp 20 bbl dye wtr & 20 bbl gel. Cmt w/295 sx Hibond 65 Modified (11.0 ppg 3.0 cf/sk yield) & 255 sx Thixotropic & 10% Calseal (14.2 ppg 1.59 cf/sk yield). Good returns until POB w/2400 psi @ 3:30 am, 10/17/97. RD Halliburton. 10 bbl gel returns. ND BOP's. Set slips w/60,000#, dump tanks. Rig released @ 5:30 am, 10/17/97. RDMOL.



14. I hereby certify that the foregoing is true and correct

Signed

Shannon Smith

Title

Engineering Secretary

Date

10/24/97

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: UTAH DOGM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

U-76241

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

NA

8. Well Name and No.

TAR SANDS FED 7-33

9. API Well No.

43-013-31860

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE COUNTY, UTAH

SUBMIT IN TRIPLICATE

1. Type of Well



Oil
Well



Gas
Well



Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

475 17TH STREET, SUITE 1500, DENVER, COLORADO 80202 (303) 292-0900

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1943 FNL 2009 FEL

SW/NE Section 33, T08S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐

Notice of Intent

☒

Subsequent Report

☐

Final Abandonment Notice

TYPE OF ACTION

☐

Abandonment

☐

Recompletion

☐

Plugging Back

☐

Casing Repair

☐

Altering Casing

☒

Other Weekly Status

☐

Change of Plans

☐

New Construction

☐

Non-Routine Fracturing

☐

Water Shut-Off

☐

Conversion to Injection

☐

Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

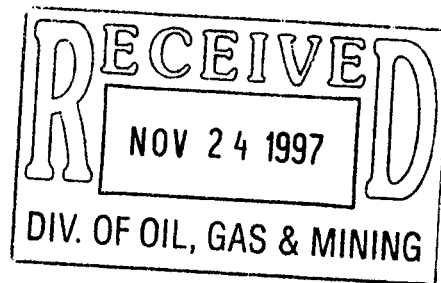
13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

WEEKLY STATUS REPORT FOR THE PERIOD OF 11/13/97 - 11/19/97

Perf CP sd @ 5705-08', 5711-19', 5766-70' & 5772-76'.

Perf B sds @ 5100-07' & 5181-87'.

Perf GB sd @ 4406-19'.



14. I hereby certify that the foregoing is true and correct

Signed

Shannon Smith

Title

Engineering Secretary

Date

11/19/97

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: UTAH DOGM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

U-76241

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

NA

8. Well Name and No.

TAR SANDS FED 7-33

9. API Well No.

43-013-31860

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE COUNTY, UTAH

SUBMIT IN TRIPLICATE

1. Type of Well



Oil
Well



Gas
Well



Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

475 17TH STREET, SUITE 1500, DENVER, COLORADO 80202 (303) 292-0900

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1943 FNL 2009 FEL

SW/NE Section 33, T08S R17E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION



Notice of Intent



Subsequent Report



Final Abandonment Notice

TYPE OF ACTION



Abandonment



Recompletion



Plugging Back



Casing Repair



Altering Casing



Other

Weekly Status



Change of Plans



New Construction



Non-Routine Fracturing



Water Shut-Off



Conversion to Injection



Dispose Water

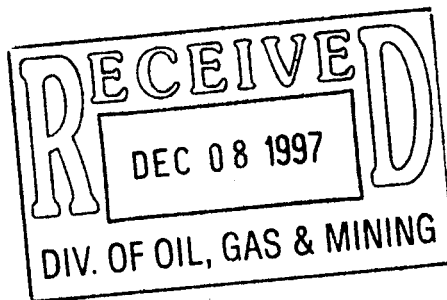
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

WEEKLY STATUS REPORT FOR THE PERIOD OF 11/20/97 - 11/26/97

Swb well. Trip production tbq.

Place well on production @ 4:00 pm, 11/22/97.



14. I hereby certify that the foregoing is true and correct

Signed

Shannon Smith

Title

Engineering Secretary

Date

12/5/97

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: UTAH DOGM

(See instructions on reverse side)

OMB NO. 1004-0137

Expires: February 28, 1995

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WORK

OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐

1b. TYPE OF WELL

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR. ☐ Other ☐

2. NAME OF OPERATOR

Inland Production Company

3. ADDRESS AND TELEPHONE NO.

475 Seventeenth Street, Suite 1500, Denver, CO 80202 (303) 292-0900

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.)*

At Surface

*SW/NE
1943 FNL 2009 FEL*

At top prod. Interval reported be

At total depth

14. PERMIT NO. *43-013-31860* DATE ISSUED *3-24-97*

9. API WELL NO.

43-013-31860

10. FIELD AND POOL OR WILDCAT

MONUMENT BUTTE

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Section 33, T08S R17E

12. COUNTY OR PARISH
DUCHESNE

13. STATE
UT

15. DATE SPUDDED
10-11-97

16. DATE T.D. REACHED
10-16-97

17. DATE COMPL. (Ready to prod.)
11-22-97

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*
5113' GL; 5126' KB

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD
5900'

21. PLUG, BACK T.D., MD & TVD
5838'

22. IF MULTIPLE COMPL., HOW MANY*
N/A

23. INTERVALS DRILLED BY
----->

ROTARY TOOLS
X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*

Green River 4406'-5776'

25. WAS DIRECTIONAL SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

1-21-98

CBL, DIGL/SP/GR/CAL, SDL/DSN/GR

27. WAS WELL CORED
No

23. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
<i>8 5/8</i>	<i>24#</i>	<i>288.56</i>	<i>12 1/4</i>	<i>120 sx Prem Plus</i>	
<i>5 1/2</i>	<i>15.5#</i>	<i>5876</i>	<i>7 7/8</i>	<i>295 sx Hibond & 255 sx Thixo</i>	

29. LINER RECORD

30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					<i>2-7/8"</i>	<i>5768'</i>	

31. PERFORATION RECORD (Interval, size and number)

GB Sand - 4406'-19' w/4 jspf
B Sand - 5100'-07'; 5181'-87' w/4 jspf
CP Sand - 5705'-08'; 5711'-19'; ; 5772'-76' w/4 jspf

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
<i>4406'-19'</i>	<i>88,300# 20/40 sd in 457 Delta frac</i>
<i>5100'-07'; 5181'-87'</i>	<i>115,300# 20/40 sd in 555 Delta frac</i>
<i>5705'-5776'</i>	<i>95,300# 20/40 sd in 513 Delta frac</i>

33.* PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)					WELL STATUS (Producing or shut-in)	
11-22-97		Pumping - 2-1/2" x 1-1/2" x 16' RHAC pump					producing	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL--BBL.	GAS--MCF.	WATER--BBL.		GAS-OIL RATIO
10 Day Avg	11/1/97	N/A	→	101	90	0		0.891
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL-BBL.	GAS--MCF.	WATER--BBL.		OIL GRAVITY-API (CORR.)	
		→						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold & Used for Fuel

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Items in #26

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Debbie E. Knight

TITLE

Permitting Specialist

DATE

1/15/98

(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries);				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Garden Gulch Mkr	3846'					
Garden Gulch 2	4152'					
Point 3	4430'					
X Marker	4660'					
Y Marker	4693'					
Douglas Creek	4824'					
Bi-Carb	5068'					
B-Lime	5217'					
Castle Peak	5653'					
Basal Carbonate	NDE					
Total Depth	5900'					

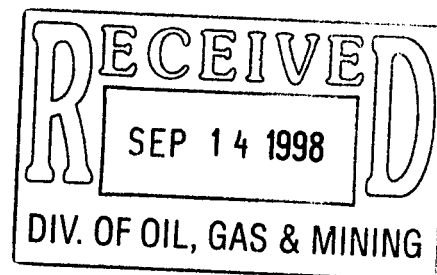
STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

1. SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals.)		5. LEASE DESIGNATION AND SERIAL NO. UTU-77234	
2. NAME OF OPERATOR INLAND PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBAL NAME N/A	
3. ADDRESS OF OPERATOR 410 17TH STREET, SUITE 700, DENVER, COLORADO 80202 (303) 893-0102		7. UNIT AGREEMENT NAME NA	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SW/NE 1943 FNL 2009 FEL		8. FARM OR LEASE NAME TAR SANDS FEDERAL 7-33	
14. API NUMBER 43-013-31860		9. WELL NO. 7-33	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5113 GR		10. FIELD AND POOL, OR WILDCAT MONUMENT BUTTE	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SW/NE Section 33, T08S R17E	
		12. COUNTY OR PARISH DUCHESNE	13. STATE UT

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data			
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER Casing <input checked="" type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>		(OTHER) <u>Change in Lease Number</u>	<input checked="" type="checkbox"/>
(OTHER) _____	<input type="checkbox"/>	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Due to unitization, the lease number for the above referenced well has been changed from U-74870 to UTU-77234.



18. I hereby certify that the foregoing is true and correct
SIGNED Debbie E. Knight TITLE Manager, Regulatory Compliance DATE 9/11/98

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

475 17TH STREET, SUITE 1500, DENVER, COLORADO 80202 (303) 292-0900

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1943 FNL 2009 FEL SW/NE Section 33, T08S R17E

5. Lease Designation and Serial No.

UTU-77234

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

NA

8. Well Name and No.

TAR SANDS FEDERAL 7-33

9. API Well No.

43-013-31860

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE COUNTY, UTAH

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

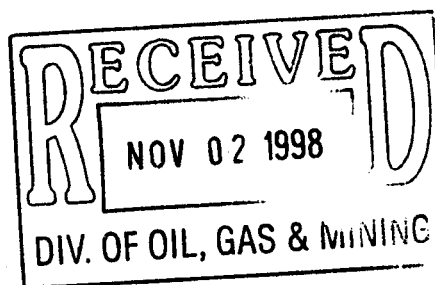
☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Site Security

☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Attached please find the site security diagram for the above referenced well.



14. I hereby certify that the foregoing is true and correct

Signed

Rebbie E. Knight

Title

Manager, Regulatory Compliance

Date

10/30/98

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: UTAH DOGM

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

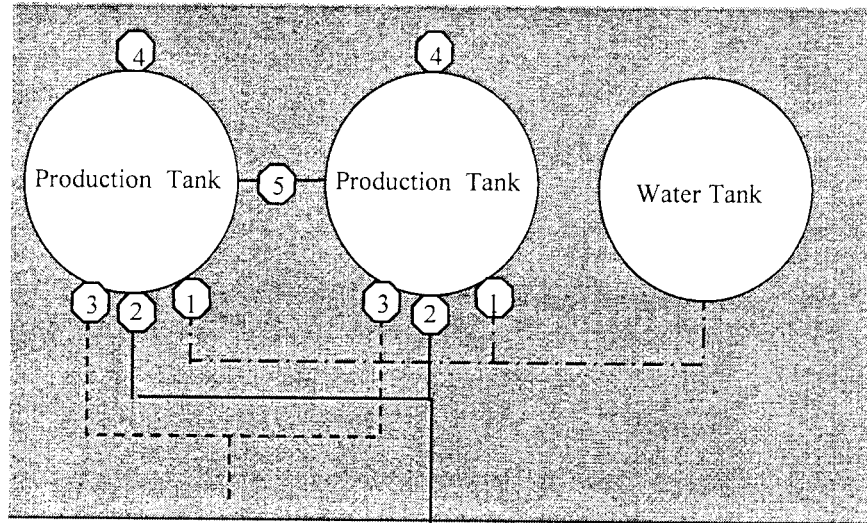
Inland Production Company Site Facility Diagram

Tar Sands 7-33

SW/NE Sec. 33, T8S, 17E

Duchesne County

Sept. 17, 1998



↑
Diked Section

Gas Separator

Gas Sales Meter

Pumping Unit

Well Head

Site Security Plan is held at the
Roosevelt Office, Roosevelt Utah

Production Phase:

- 1) Valves 1, and 3 sealed closed
- 2) Valve 2 sealed open

Sales Phase:

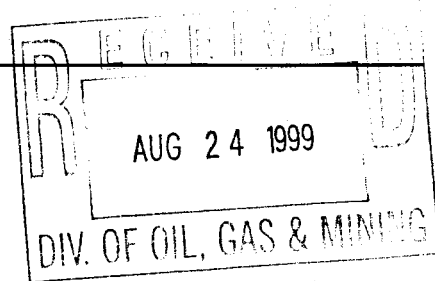
- 1) Valves 1, 2, 4, and 5 sealed closed
- 2) Valve 3 open

Draining Phase:

- 1) Valve 1 open

Legend

Emulsion Line
Load Line	-----
Water Line	- - - - -
Oil Line	—————
Gas Sales



August 16, 1999

Mr. Dan Jarvis
State of Utah
Division of Oil, Gas and Mining
P. O. Box 145801
Salt Lake City, Utah 84114-5801

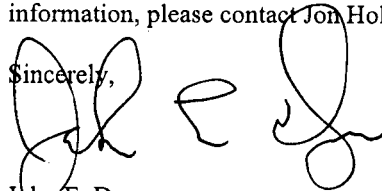
RE: Permit Application for Water Injection Well
Tar Sands Federal #7-33-8-17
Monument Butte Field, Blackjack Unit, Lease #UTU-77234
Section 33-Township 8S-Range 17E
Duchesne County, Utah

Dear Mr. Jarvis:

Inland Production Company herein requests approval to convert the Tar Sands Federal #7-33-8-17 from a producing oil well to a water injection well in the Monument Butte (Green River) Field.

I hope you find this application complete; however, if you have any questions or require additional information, please contact Jon Holst at (303) 893-0102.

Sincerely,


John E. Dyer
Chief Operating Officer

~~Blackjack Unit - 234-27~~
Hearing Cont. 8/25/99 ~~to~~

WC-246.1 > Not included
in Unit Hearing.

INLAND PRODUCTION COMPANY
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
TAR SANDS FEDERAL #7-33-8-17
BLACKJACK UNIT
MONUMENT BUTTE (GREEN RIVER) FIELD
LEASE #UTU-77234
AUGUST 16, 1999

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APPLICATION FOR INJECTION WELL - UIC FORM 1

AUG 24 1999

DIV. OF OIL, GAS & MINING

Well Name and number:		Tar Sands Federal #7-33-8-17	
Field or Unit name:		Monument Butte (Green River)	Blackjack Unit
Lease No.		UTU-77234	
Well Location: QQ		SWNE	section 33 township 8S range 17E county Duchesne
Is this application for expansion of an existing project? Yes [X] No []			
Will the proposed well be used for: Enhanced Recovery? Yes [X] No []			
Disposal? Yes [] No [X]			
Storage? Yes [] No [X]			
Is this application for a new well to be drilled? Yes [] No [X]			
If this application is for an existing well, has a casing test been performed on the well? Yes [X] No []			
Date of test: 11/13/97			
API number: 43-013-31860			
Proposed injection interval: from 4406' to 5776'			
Proposed maximum injection rate 500 bpd pressure 1768 psig			
Proposed injection zone contains [x] oil, [] gas, and/or [] fresh water within 1/2 mile of the well.			
IMPORTANT: Additional information as required by R615-5-2 should accompany this form.			
List of Attachments: Attachments "A" through "H"			
I certify that this report is true and complete to the best of my knowledge.			
Name: John E. Dyer		Signature	
Title Chief Operating Officer		Date 8/16/99	
Phone No. (303) 893-0102			
(State use only)			
Application approved by		Title	
Approval Date			

Comments:

Tar Sands Federal #7-33

Spud Date: 4/28/97
Put on Production: 11/22/97
GL: 5113' KB: 5126'

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (290.48')
DEPTH LANDED: 288.56' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cmt, est 8 bbls to surf.

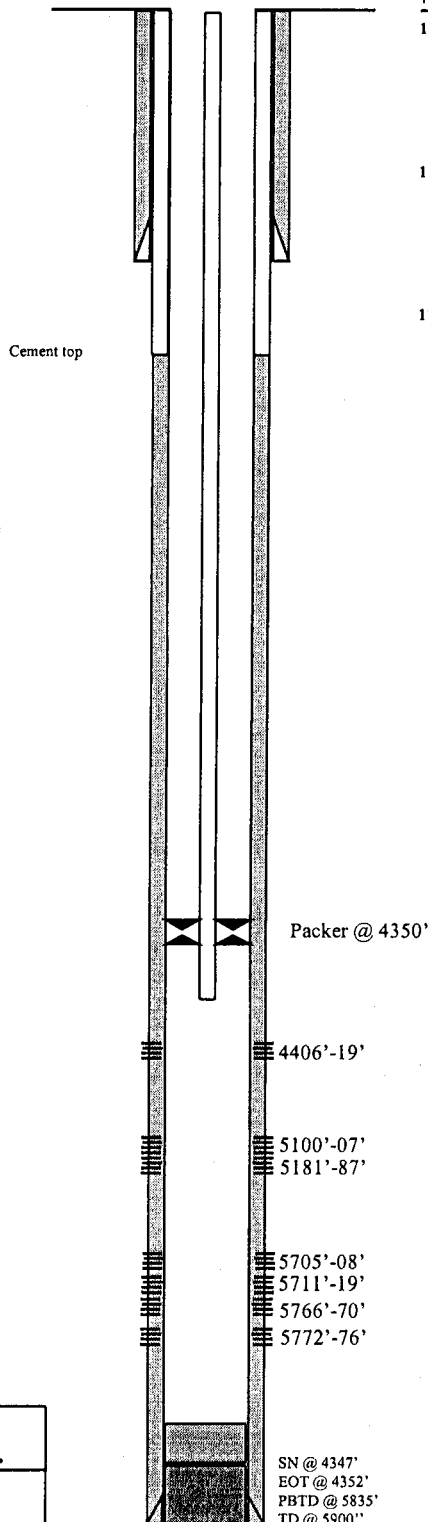
PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 137 jts. (5878')
HOLE SIZE: 7-7/8"
CEMENT DATA: 295 sxs Hibond mixed & 255 sxs thixotropic
CEMENT TOP AT:
SET AT: 5876'

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 136 jts
PACKER: 4350'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: 4352'
SN LANDED AT: 4347'

Proposed Injection Wellbore Diagram



Initial Production: 101 BOPD;
90 MCFD; 0 BWPD

FRAC JOB

11/15/97 5705'-5776' **Frac CP sand as follows:**
95,300# 20/40 sand in 513 bbls of
Delta frac. Breakdown @ 2516 psi, treated
@ avg rate 28.1 bpm w/avg press of 1550
psi. ISIP-1791 psi, 5-min 1665 psi. Start
flowback on 12/64" ck for 3-1/2 hrs and
died.

11/18/97 5100'-5187' **Frac B sand as follows:**
115,300# of 20/40 sand in 555 bbls of
Delta frac. Breakdown @ 2340 psi.
Treated @ avg rate 26 bpm w/avg press
of 1730 psi. ISIP-2156 psi. 5-min 2027 psi.
Start flowback on 12/64" ck for 4 hrs &
died.

11/20/97 4406'-4419' **Frac GB sand as follows:**
88,300# of 20/40 sand in 457 bbls of
Delta frac. Breakdown @ 3024 psi.
Treated @ avg rate 24.1 bpm w/avg press
of 1800 psi. ISIP-2205 psi. 5-min 2137 psi.
Start flowback on 12/64" ck for 3 hrs &
died.

PERFORATION RECORD

Date	Interval	Tool	Holes
11/14/97	5705' - 5708'	4 JSPF	12 holes
11/14/97	5711' - 5719'	4 JSPF	32 holes
11/14/97	5766' - 5770'	4 JSPF	16 holes
11/14/97	5772' - 5776'	4 JSPF	16 holes
11/16/97	5100' - 5107'	4 JSPF	28 holes
11/16/97	5181' - 5187'	4 JSPF	24 holes
11/19/97	4406' - 4419'	4 JSPF	52 holes



Inland Resources Inc.

Tar Sands Federal #7-33

1943 FNL 2009 FEL

SWNE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31860; Lease #UTU-77234

WORK PROCEDURE FOR INJECTION CONVERSION

- 1. Rig up hot oil truck to casing. Pump water. Unseat pump. Flush rods. Trip out of hole with rods and pump.**
- 2. Trip out of hole with tubing, breaking and doping every connection. Trip in hole with packer and tubing. Rig up water truck to casing. Pump packer fluid. Set packer.**
- 3. Test casing and packer.**
- 4. Rig down, move out.**

**REQUIREMENTS FOR INJECTION OF FLUIDS INTO RESERVOIRS
RULE R615-5-1**

- 1. Operations to increase ultimate recovery, such as cycling of gas, the maintenance of pressure, the introduction of gas, water or other substances into a reservoir for the purpose of secondary or other enhanced recovery or for storage and the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Board after notice and hearing.**
- 2. A request for agency action for authority for the injection of gas, liquified petroleum gas, air, water or any other medium into any formation for any reason, including but not necessarily limited to the establishment of or the expansion of waterflood projects, enhanced recovery projects, and pressure maintenance projects shall contain:**

2.1 The name and address of the operator of the project.

Inland Production Company
410 17th Street, Suite 700
Denver, Colorado 80202

2.2 A plat showing the area involved and identifying all wells, including all proposed injection wells, in the project area and within one-half mile of the project area.

See Attachment A

2.3 A full description of the particular operation for approval is requested.

Approval is requested to convert the Tar Sands Federal #7-33-8-17 from a producing oil well to a water injection well in the Monument Butte (Green River) Field, Blackjack Unit.

2.4 A description of the pools from which the identified wells are producing or have produced.

The proposed injection well will inject into the Green River Formation.

2.5 The names, description and depth of the pool or pools to be affected.

The injection zone is in the Green River Formation. In the Tar Sands Federal #7-33-8-17 well, the proposed injection zone is from 4406' - 5776'. The confining strata directly above and below the injection zones are the top of the Garden Gulch formation and the Basal Carbonate. All of the confining strata are impermeable, and will effectively seal off the oil, gas, and water of the injection zone from any strata directly above or below it.

2.6 A copy of a log of a representative well completed in the pool.

The referenced log for the Tar Sands Federal #7-33-8-17 is on file with the Utah Division of Oil, Gas and Mining.

- 2.7 A statement as to the type of fluid to be used for injection, its source and the estimated amounts to be injected daily.**

The primary type and source of fluid to be used for injection will be culinary water from the Johnson Water District supply line. The average estimated injection of fluids will be at a rate of 300 BPD, and the estimated maximum injection will be at a rate of 500 BPD.

- 2.8 A list of all operators and surface owners within one-half mile radius of the proposed project.**

See Attachment B.

- 2.9 An affidavit certifying that said operators or owners and surface owners within a one-half mile radius have been provided a copy of the petition for injection.**

See Attachment C.

- 2.10 Any additional information the Board may determine is necessary to adequately review the petition.**

Inland Production Company will supply any additional information requested by the Utah Division of Oil, Gas and Mining.

- 4.0 Establish recovery projects may be expanded and additional wells placed on injection only upon authority from the Board after notice and hearing or by administrative approval.**

This proposed injection well is on a federal lease (Lease #UTU-77234) in the Monument Butte (Green River) Field, and this request is for administrative approval.

**REQUIREMENTS FOR CLASS II INJECTION WELLS INCLUDING WATER DISPOSAL,
STORAGE AND ENHANCED RECOVERY WELLS
SECTION V – RULE R615-5-2**

- 1. Injection well shall be completed, equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.**
- 2. The application for an injection well shall include a properly completed Form DOGM-UIC-1 and the following:**
 - 2.1 A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed wells, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.**

See Attachments A and B.
 - 2.2 Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper and porosity.**

All logs are on file with the Utah Division of Oil, Gas and Mining.
 - 2.3 A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.**

A copy of the cement bond log is on file with the Utah Division of Oil, Gas and Mining.
 - 2.4 Copies of logs already on file with the Division should be referenced, but need not be refilled.**

All copies of logs are on file with the Utah Division of Oil, Gas and Mining.
 - 2.5 A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.**

The casing program is 8-5/8", 24#, J-55 surface casing run to 288' GL, and 5-1/2", 15.5#, J-55 casing run from surface to 5878' KB. A casing integrity test will be conducted at the time of conversion. See Attachment E.
 - 2.6 A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.**

The primary type and source of fluid to be injected is culinary water from the Johnson Water District supply line. The estimated average rate of injection will be 300 BPD, and the estimated maximum rate of injection will be 500 BPD.
 - 2.7 Standard laboratory analysis of the fluid to be injected, the fluid in the formation into which the fluid is being injected, and the compatibility of the fluids.**

See Attachment F, F-1, and F-2.

2.8 The proposed average and maximum injection pressures.

The proposed average injection pressure will be approximately 1500 psig and the maximum injection pressure will not exceed 1768 psig.

2.9 Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.

The minimum fracture gradient for the Tar Sands Federal #7-33-8-17, for proposed zones (4406' - 5776') calculates at .745 psig/ft. The maximum injection pressures will be limited so as not to exceed the gradient. A step rate test will be performed periodically to ensure we are below parting pressure. The proposed maximum injection pressure is 1768 psig. See Attachments G through G-3.

2.10 Appropriate geological data on the injection interval and confining beds, including the geologic name, lithologic description, thickness, depth, and lateral extent.

In the Tar Sands Federal #7-33-8-17, the injection zone (4406' - 5776') is in the Douglas Creek member of the Green River Formation. The reservoir is a very fine-grained sandstone with minor imbedded shale streaks. The estimated porosity is 13%. The Douglas Creek member is composed of porous and permeable lenticular calcareous sandstone and low porosity carbonates and calcareous shale. The porous and lenticular sandstone varies in thickness from 0-31' within the Monument Butte area. The strata confining the injection zone are composed of tight, moderately calcareous, sandy lacustrine shales. All of the confining strata are impermeable, and will effectively seal off the oil, gas, and water of the injection zone from any strata directly above or below it.

2.11 A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter the improper intervals.

See Attachments E through E-8.

Additionally, the injection system will be equipped with high and low pressure shut down devices that will automatically shut in injection waters if a system blockage or leakage occurs. One way check valves will also ensure proper flow management. Relief valves will also be utilized for high-pressure relief.

2.12 An affidavit certifying that a copy of the application has been provided to all operators or owners, and surface owners within a one-half mile radius of the proposed injection well.

See Attachment C.

2.13 Any other information that the Board or Division may determine is necessary to adequately review the application.

Inland Production Company will supply any requested information to the Board or Division.

Attachment A

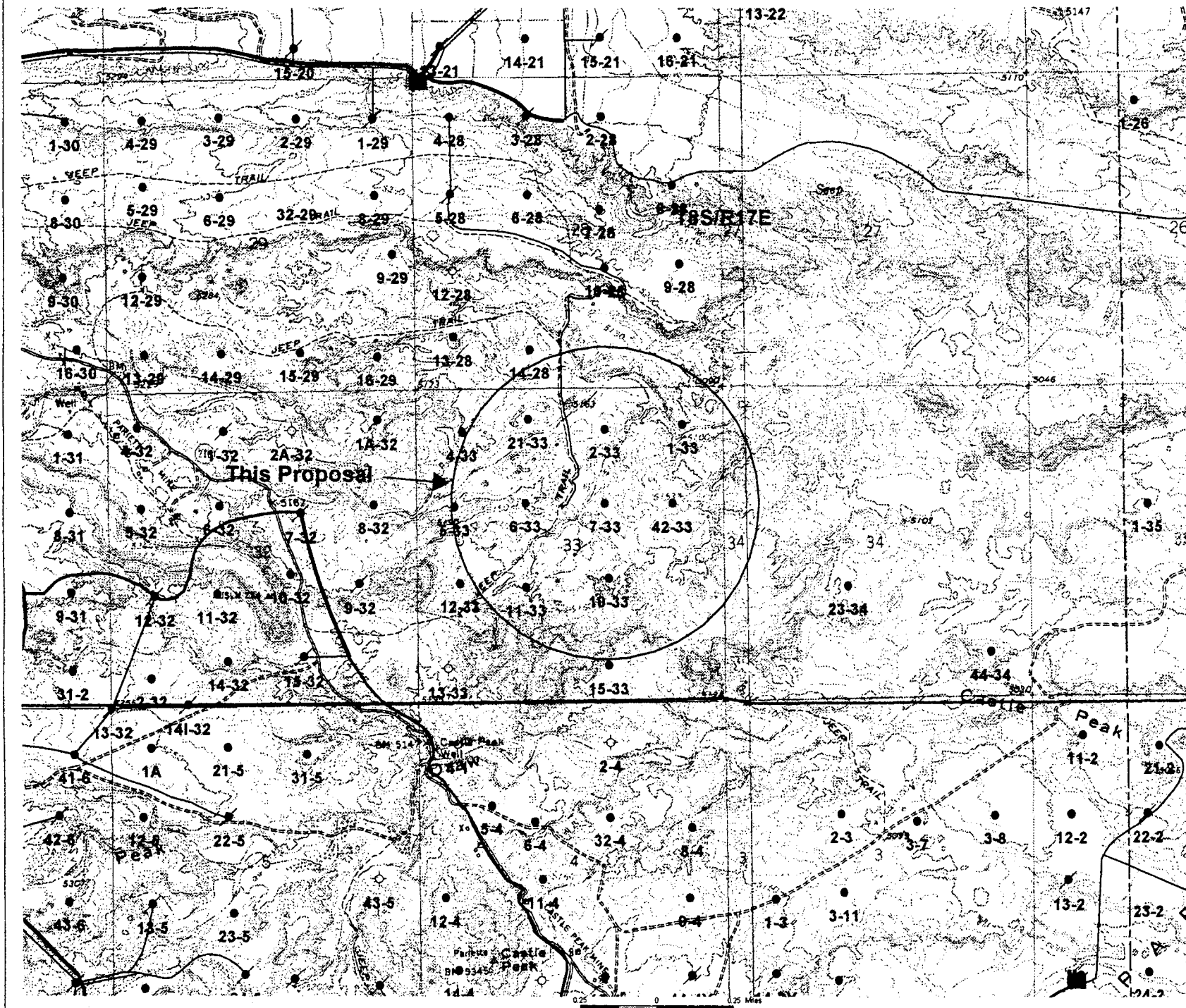


Exhibit "A"

- Well Categories
- INJ
 - OIL
 - DRY
 - SHUTIN
 - SUSPENDED
 - Water 6"
 - Water 4"
 - Water 2 - 3"
 - Injectors

VINTA BASIN
Duckhorn & Duckhorn, Utah

1817 17th Street, Suite 200
Durango, Colorado 81301
Phone (303) 241-1111

Date 11-09-06

Attachment A-1

E 1/4 Sec 29
1910 Brass Cap
Pile of Stones

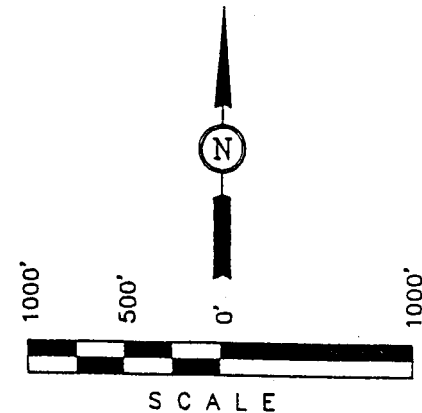
T8S, R17E, S.L.B.&M.

INLAND PRODUCTIVE CO.

Well location, TAR SANDS FEDERAL #7-33 located as shown in the SW 1/4 NE 1/4 Section 33, T8S, R17E, S.L.B.&M. Duchesne County, Utah.

BASIS OF ELEVATION

BENCH MARK LOCATED IN THE SW 1/4 OF SECTION 29, T8S, R17E, S.L.B.&M. TAKEN FROM THE MYTON SE QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5229 FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Robert L. Gray
REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 11-20-96	DATE DRAWN: 12-03-96
PARTY J.F. M.C. D.R.B.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE INLAND PRODUCTION CO.	

N00°03'W - G.L.O.
(Basis of Bearings)
2646.55' (Meas.)

S89°45'33"W 2641.61' (Meas.)

S89°48'46"W 2632.10' (Meas.)

1910
Brass Cap
Pile of Stones

1910
Brass Cap
Pile of Stones

1910
Brass Cap
Pile of Stones

TAR SANDS FEDERAL #7-33
Elev. Ungraded Ground = 5115'

1943'

205

2009'

212

1910 Brass Cap
1.5' High, Small
Pile of Stones

N00°03'W - (G.L.O.)

N00°04'37"W 2647.76' (Meas.)

N00°02'W - (G.L.O.)

T8S

T9S

N89°58'E - (G.L.O.)

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

EXHIBIT B

Page 1

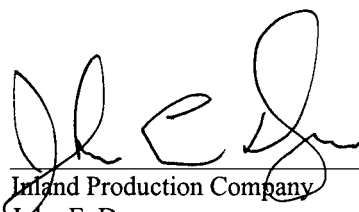
#	Land Description	Mineral Ownership & Expires	Minerals Leased By	Surface Rights
1	<u>Township 8 South, Range 17 East</u> Section 26: S/2SW/4, SW/4SE/4 Section 27: All Section 28: All Section 33: N/2NE/4 Section 34: N/2, N/2SE/4	UTU-76241 HBP	Inland Production Company	(Surface Rights) USA
2	<u>Township 8 South, Range 17 East</u> Section 33: SW/4NE/4, W/2NW/4, SE/4NW/4, SW/4, E/2SE/4	UTU-77234 HBP	Inland Production Company	(Surface Rights) USA
3	<u>Township 8 South, Range 17 East</u> Section 33: SE/4NE/4, NE/4NW/4	UTU-76955 HBP	Wildrose Resources Corp.	(Surface Rights) USA

ATTACHMENT C

CERTIFICATION FOR SURFACE OWNER NOTIFICATION

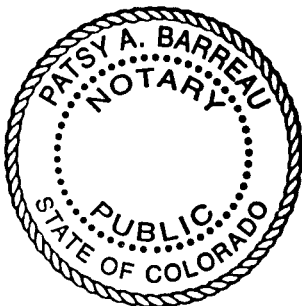
RE: Application for Approval of Class II Injection Well
Tar Sands Federal #7-33-8-17

I hereby certify that a copy of the injection application has been provided to all surface owners within a one-half mile radius of the proposed injection well.

Signed: 
Inland Production Company
John E. Dyer
Chief Operating Officer

Sworn to and subscribed before me this 16th day of August, 1999.

Notary Public in and for the State of Colorado: Patsy A. Barreau



My Commission Expires 11/14/2000

Attachment E

Tar Sands Federal #7-33

Spud Date: 4/28/97
Put on Production: 11/22/97
GL: 5113' KB: 5126'

Initial Production: 101 BOPD;
90 MCFD; 0 BWPD

Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (290.48')
DEPTH LANDED: 288.56' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cmt, est 8 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 137 jts. (5878')
HOLE SIZE: 7-7/8"
CEMENT DATA: 295 sxs Hibond mixed & 255 sxs thixotropic
CEMENT TOP AT:
SET AT: 5876'

MOST 780% TO 2646'

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 180 jts
TUBING ANCHOR: 5634'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: ?
SN LANDED AT: 5700'

SUCKER RODS

POLISHED ROD: 1-1/2" x 22' SM
SUCKER RODS: 4-11/2" wt rods; 4-3/4" scraped; 124-3/4" plain;
94-3/4" scraped; 1-8", 1-6", 2'x3/4" pony rod
TOTAL ROD STRING LENGTH: ?
PUMP NUMBER: ?
PUMP SIZE: 2-1/2" x 1-1/2" x 16' RHAC
STROKE LENGTH: 64"
PUMP SPEED, SPM: 10 SPM
LOGS: DIGL/SP/GR/CAL (5904'-299')
SDL/DSN/GR (5874'-3000')

FRAC JOB

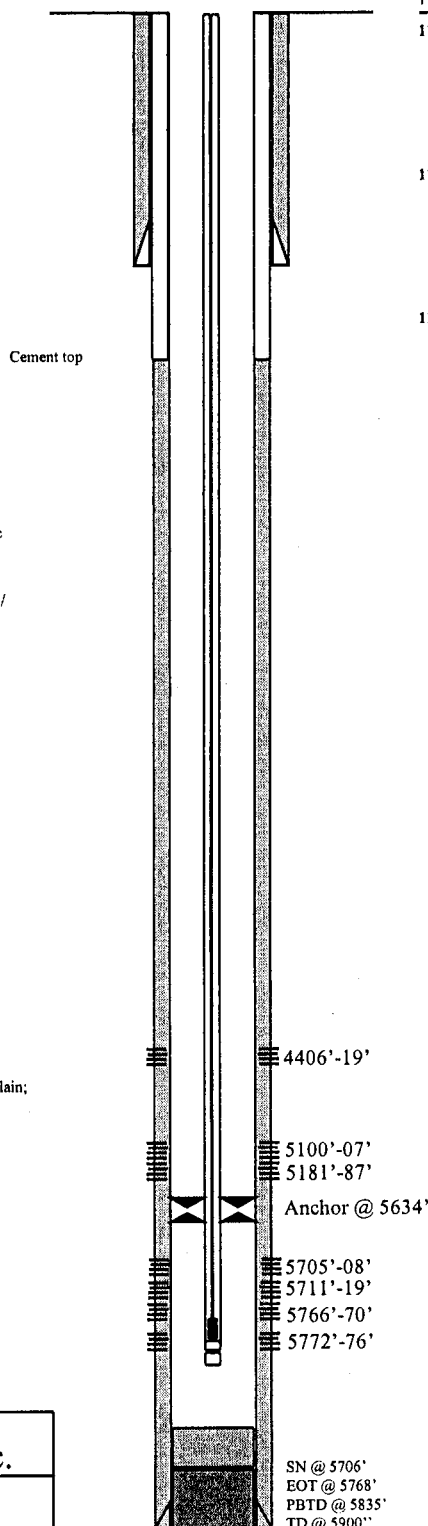
11/15/97 5705'-5776' **Frac CP sand as follows:**
95,300# 20/40 sand in 513 bbls of
Delta frac. Breakdown @ 2516 psi, treated
@ avg rate 28.1 bpm w/avg press of 1550
psi. ISIP-1791 psi, 5-min 1665 psi. Start
flowback on 12/64" ck for 3-1/2 hrs and
died.

11/18/97 5100'-5187' **Frac B sand as follows:**
115,300# of 20/40 sand in 555 bbls of
Delta frac. Breakdown @ 2340 psi.
Treated @ avg rate 26 bpm w/avg press
of 1730 psi. ISIP-2156 psi, 5-min 2027 psi.
Start flowback on 12/64" ck for 4 hrs &
died.

11/20/97 4406'-4419' **Frac GB sand as follows:**
88,300# of 20/40 sand in 457 bbls of
Delta frac. Breakdown @ 3024 psi.
Treated @ avg rate 24.1 bpm w/avg press
of 1800 psi. ISIP-2205 psi, 5-min 2137 psi.
Start flowback on 12/64" ck for 3 hrs &
died.

PERFORATION RECORD

Date	Interval	Tool	Holes
11/14/97	5705' - 5708'	4 JSPF	12 holes
11/14/97	5711' - 5719'	4 JSPF	32 holes
11/14/97	5766' - 5770'	4 JSPF	16 holes
11/14/97	5772' - 5776'	4 JSPF	16 holes
11/16/97	5100' - 5107'	4 JSPF	28 holes
11/16/97	5181' - 5187'	4 JSPF	24 holes
11/19/97	4406' - 4419'	4 JSPF	52 holes



Inland Resources Inc.

Tar Sands Federal #7-33

1943 FNL 2009 FEL

SWNE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31860; Lease #UTU-77234

Attachment E-1

Tar Sands Federal #11-33

Spud Date: 4-24-97
Put on Production:

GL: 7' KB: 7'
SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (291.97')
DEPTH LANDED: 291.90 GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cmt, est 6 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 141 jts. (5897.93)
DEPTH LANDED: 5890' KB
HOLE SIZE: 7-7/8"
CEMENT DATA: 455 sx Hybond mixed & 310 sx thixotropic
CEMENT TOP AT:

7 3070 to 3160'

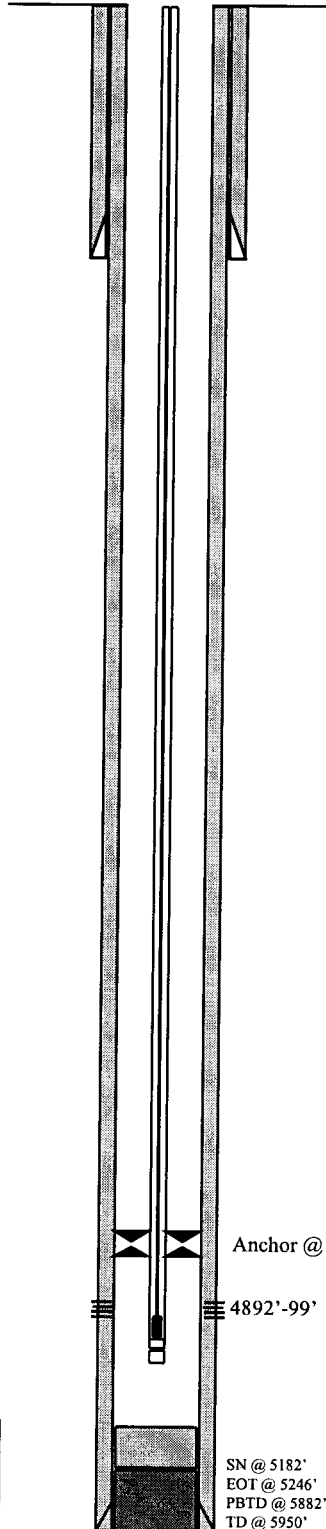
TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 157 jts
TUBING ANCHOR: 4854'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: 4980'
SN LANDED AT: 4919'

SUCKER RODS

POLISHED ROD: 1-1/2" x 22' SM
SUCKER RODS: 4-3/4" scapered; 92-3/4" plain; 96-3/4" scapered;
PUMP SIZE: 2-1/2 x 1-1/2 x 15' RHAC pump
STROKE LENGTH: 74"
PUMP SPEED, SPM: 9 SPM
LOGS: DIGL/SP/GR/CAL
SDL/DSN/GR

Wellbore Diagram



Initial Production: 5 BOPD;
18 MCFD; 1 BWPD

FRAC JOB

9/18/98 4192'-4199'

Frac D-2 sand as follows:

RU BJ Services & frac D sds w/102,800#
20/40 sd in 500 bbls Viking 1-25 fluid.
Perfs broke dn @ 2340 psi. Treated @ ave
press of 1890 psi w/ave rate of 26.5 BPM.
ISIP: 3300 psi, 5 min: 2920 psi.
Flowback on 12/64 choke for 3-1/2 hrs &
died.

PERFORATION RECORD

9/18/98 4892'-4899' 4 JSPF 28 holes



Inland Resources Inc.

Tar Sands Federal #11-33

1980 FSL 1871 FWL

NESW Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31861; Lease #U-76241

SN @ 5182'
EOT @ 5246'
PBSD @ 5882'
TD @ 5950'

Attachment E-2

Tar Sands Federal #10-33

Spud Date: 8/15/98
Put on Production: 9/15/98
GL: 5145' KB: 5155'

Initial Production: 32 BOPD;
23 MCFD; 2 BWPD

Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (294')
DEPTH LANDED: 304' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 155 sxs Premium cmt, est 10 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 139 jts. (5938')
HOLE SIZE: 7-7/8"
CEMENT DATA: 250 sxs modified mixed & 300 sxs class G
CEMENT TOP AT: ?
SET AT: 5947'

Most 280' to 3070

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 163 jts
TUBING ANCHOR: 5057'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: 5246'
SN LANDED AT: 5182'

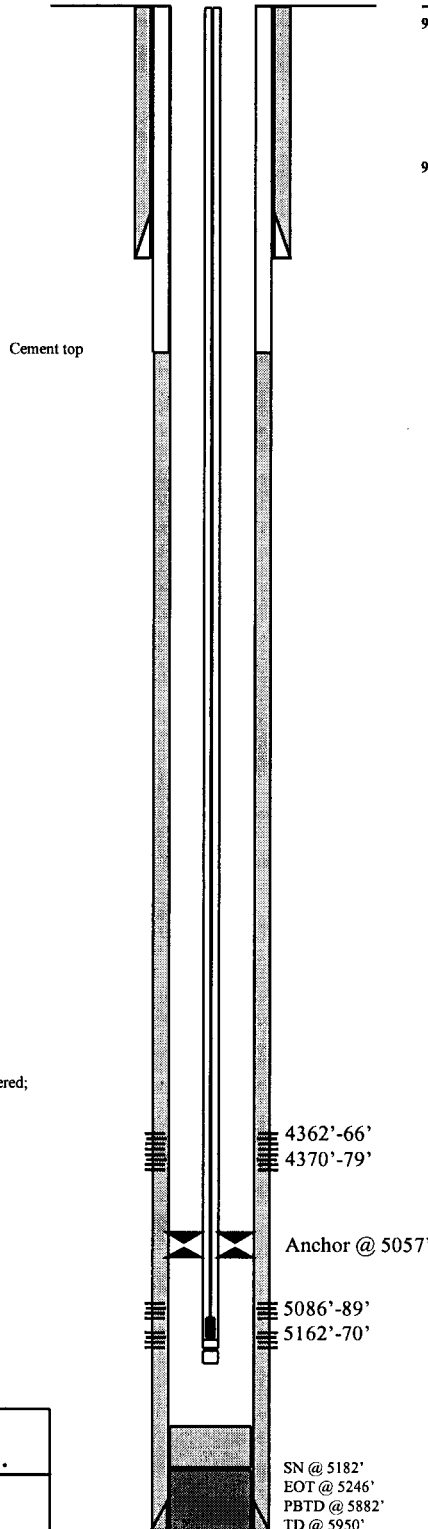
SUCKER RODS

POLISHED ROD: 1-1/2" x 22' SM
SUCKER RODS: 4-3/4" scapered; 104-3/4" plain; 95-3/4" scapered;
PUMP SIZE: ?
STROKE LENGTH: 64"
PUMP SPEED, SPM: 8 SPM
LOGS: DIGL/SP/GR/CAL
SDL/DSN/GR

FRAC JOB

9/9/98 5086'-5170' **Frac B-0.5 & B-2 sands as follows:**
RU BJ Services & frac B sds w/131,200#
20/40 sd in 618 bbls Viking I-25 fluid.
Perfs broke dn @ 2270 psi. Treated @ ave
press of 2295 psi w/ave rate of 30.3 BPM.
ISIP: 3270 psi, 5 min: 3130 psi.
Flowback on 12/64 choke for 5 hrs & died.

9/11/98 4362'-4379' **Frac GB-6 sand as follows:**
RU BJ Services & frac GB sds w/110,400#
20/40 sd in 485 bbls Viking I-25 fluid.
Perfs broke dn @ 3670 psi. Treated @ ave
press of 2010 psi w/ave rate of 26.8 BPM
before screening out w/9.9# sd on perfs.
ISIP: 3700 psi, 5 min: 1880 psi.
Flowback on 12/64 choke for 5-1/2 hrs &
died.



PERFORATION RECORD

Date	Interval	Tool	Holes
9/9/98	5086' - 5089'	4 JSPF	12 holes
9/9/98	5162' - 5170'	4 JSPF	32 holes
9/10/98	4362' - 4366'	4 JSPF	16 holes
9/10/98	4370' - 4379'	4 JSPF	36 holes



Inland Resources Inc.

Tar Sands Federal #10-33

2130 FSL 1963 FEL

NWSE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31884; Lease #U-76241

Attachment E-3

Harbortown Federal #21-33

Spud Date: 3/2/98
Put on Production: 4/13/98
GL: 5129' KB: 5142'

Initial Production: 74 BOPD,
40 MCFPD, ? BWPD

Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE:
WEIGHT:
LENGTH:
DEPTH LANDED: 299'
HOLE SIZE:
CEMENT DATA: 200 sxs cmt.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE:
WEIGHT:
LENGTH:
DEPTH LANDED: 5909'
HOLE SIZE:
CEMENT DATA: 510 sks
CEMENT TOP AT:

*Bond Log to 3970
Looks like most
> 80% to there*

TUBING

SIZE/GRADE/WT.: 2-7/8"
NO. OF JOINTS: ? 5737'
TUBING ANCHOR:
SEATING NIPPLE:
TOTAL STRING LENGTH:
SN LANDED AT:

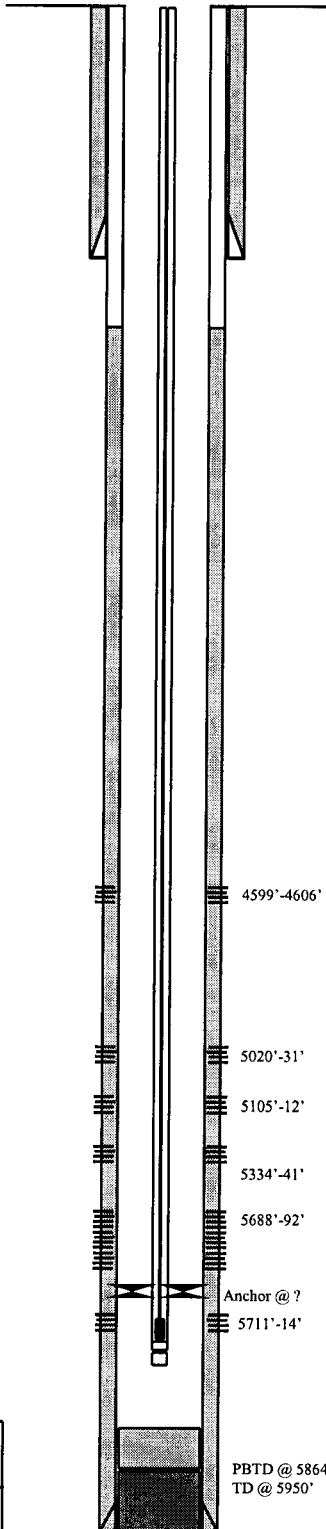
SUCKER RODS

POLISHED ROD:
SUCKER RODS:
TOTAL ROD STRING LENGTH:
PUMP NUMBER:
PUMP SIZE:
STROKE LENGTH:
PUMP SPEED, SPM:
LOGS: DIGL/SP/GR/CAL
SDL/DSN/GR

FRAC JOB

SWFR (5688'-32')	426 bbls 70,500 lbs sand, 20/40 sd x-link gelled water.
SWFR (5334'-41')	305 bbls 40,700 lbs sand, 20/40 sd x-link gelled water.
SWFR (5020'-5112')	532 bbls 100,000 lbs sand, 20/40 sd x-link gelled water.

PERFORATION RECORD



Inland Resources Inc.

Harbourtown Federal #21-33

513 FNL 1938 FWL

NENW Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31914

Attachment E-4

Tar Sands Federal #2-33

Spud Date: 8/23/97
Put on Production: 9/30/97
GL: KB:

Initial Production: 138 BOPD;
132 MCFD; 15 BWPD

Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (299')
DEPTH LANDED: 301' KB
HOLE SIZE: 12-1/4"
CEMENT DATA: 140 sxs Premium cmt, est 4 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 140 jts. (5935')
HOLE SIZE: 7-7/8"
CEMENT DATA: 285 sxs Hibond mixed & 285 sxs thixotropic
CEMENT TOP AT:
SET AT: 5946' *> 80% TO 3820*

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 183 jts
TUBING ANCHOR: 5695'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: ?
SN LANDED AT: 5760'

SUCKER RODS

POLISHED ROD: 1-1/2" x 22' SM
SUCKER RODS: 4-11/2" wt rods; 4-3/4" scraped; 126-3/4" plain;
95-3/4" scraped
TOTAL ROD STRING LENGTH: ?
PUMP NUMBER: ?
PUMP SIZE: 2-1/2" x 1-1/2" x 15' RHAC
STROKE LENGTH: 80"
PUMP SPEED, SPM: 8.5 SPM
LOGS: DIGL/SP/GR/CAL (5948'-309')
SDL/DSN/GR (5916'-3000')

FRAC JOB

9/19/97 5724'-5839' **Frac CP sand as follows:**
120,000# 20/40 sand in 603 bbls of Boragel. Breakdown @ 2046 psi, treated @ avg rate 28.3 bpm w/avg press of 1300 psi. ISIP-1693 psi, 5-min 1508 psi. Start flowback on 12/64" ck for 3 - 1/2 hrs and died.

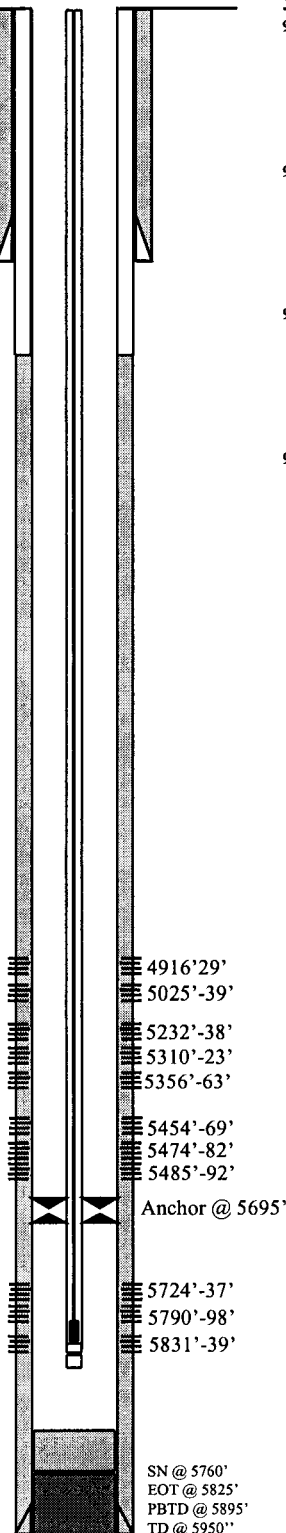
9/21/97 5454'-5492' **Frac LDC sand as follows:**
77,500# of 20/40 sand in 445 bbls of Boragel. Breakdown @ 3344 psi. Treated @ avg rate 24.4 bpm w/avg press of 2000 psi. ISIP-2404 psi. 5-min 2341 psi. Start flowback on 12/64" ck for 3-1/2 hrs & died.

9/24/97 5232'-5363' **Frac A/B sands as follows:**
141,000# of 20/40 sand in 639 bbls of Boragel. Breakdown @ 2900 psi. Treated @ avg rate 30.15 bpm w/avg press of 2250 psi. ISIP-2535 psi. 5-min 2373 psi. Start flowback on 12/64" ck for 5 - 1/2 hrs & died.

9/26/97 5025'-4929' **Frac C/D sands as follows:**
141,000# 20/40 sand in 663 bbls Boragel. Perfs broke back @ 2427 psi (13 BPM). Treated @ ave press os 2080 psi w/ave rate of 30.2 BPM. ISIP: 2810 psi, 5 min: 2773 psi. Flowback on 12/64" ck for 4-1/2 hrs & died.

PERFORATION RECORD

Date	Interval	Tool	Holes
9/16/97	5724' - 5737'	4 JSPF	52 holes
9/16/97	5790' - 5798'	4 JSPF	32 holes
9/16/97	5831' - 5839'	4 JSPF	32 holes
9/20/97	5454' - 5469'	4 JSPF	60 holes
9/20/97	5474' - 5482'	4 JSPF	32 holes
9/20/97	5485' - 5492'	4 JSPF	28 holes
9/23/97	5232' - 5238'	4 JSPF	24 holes
9/23/97	5310' - 5323'	4 JSPF	52 holes
9/23/97	5356' - 5363'	4 JSPF	28 holes
9/25/97	5025' - 5039'	4 JSPF	56 holes
9/25/97	4916' - 4929'	4 JSPF	52 holes



Inland Resources Inc.

Tar Sands Federal #2-33

545 FNL 1991 FEL

NWNE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31867; Lease #U-76241

SN @ 5760'
EOT @ 5825'
PBTD @ 5895'
TD @ 5950'

Attachment E-5

Tar Sands Federal #1-33

Spud Date: 10/19/97
Put on Production: 11/22/97
GL: 5095' KB: 5108'

Initial Production: 111 BOPD;
114 MCFD; 4 BWPD

Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (260')
DEPTH LANDED: 259'
HOLE SIZE: 12-1/4"
CEMENT DATA: 140 sxs Premium cmt, est 5 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 139 jts. (5954')
HOLE SIZE: 7-7/8"
CEMENT DATA: 255 sxs Hibond mixed & 265 sxs thixotropic
CEMENT TOP AT: ?
LANDED AT: 5964' *LOOKS LIKE GOOD BOND TO ~ 4000' CEMENT TOP @ 1287*

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 182 jts
TUBING ANCHOR: 5675'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: ?
SN LANDED AT: 5739'

SUCKER RODS

POLISHED ROD: 1-1/2" x 22' SM
SUCKER RODS: 4-11/2" wt rods; 4-3/4" scraped; 126-3/4" plain;
95-3/4" scraped; 1-4"x3/4" pony rod
TOTAL ROD STRING LENGTH: ?
PUMP NUMBER: ?
PUMP SIZE: 2-1/2" x 1-1/2" x 15' RHAC
STROKE LENGTH: 74"
PUMP SPEED, SPM: 8 SPM
LOGS: DIG/SP/GR/CAL (5970'-269')
SDL/DSN/GR (5961'-3000')

FRAC JOB

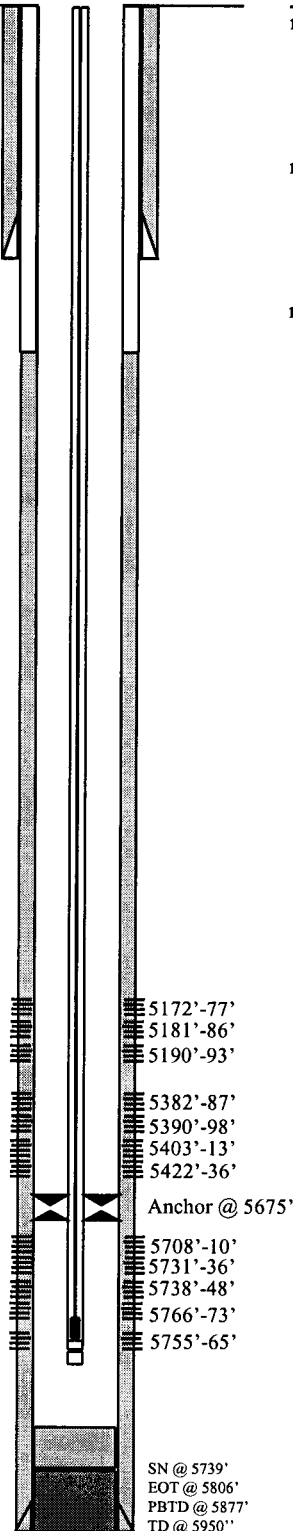
11/15/97 5708'-5773' **Frac CP sand as follows:**
111,300# 20/40 sand in 567 bbls of Delta frac. Breakdown @ 2043 psi, treated @ avg rate 30.1 bpm w/avg press of 1480 psi. ISIP-1757 psi, 5-min 1658 psi. Start flowback on 12/64" ck for 5-1/2 hrs and died.

11/18/97 5382'-5436' **Frac A sand as follows:**
127,300# of 20/40 sand in 596 bbls of Delta frac. Breakdown @ 2354 psi. Treated @ avg rate 29.9 bpm w/avg press of 1580 psi. ISIP-2038 psi, 5-min 1902 psi. Start flowback on 12/64" ck for 4 hrs & died.

11/20/97 5172'-5193' **Frac B sand as follows:**
113,500# of 20/40 sand in 564 bbls of Delta frac. Breakdown @ 1885 psi. Treated @ avg rate 28.5 bpm w/avg press of 2000 psi. ISIP-2668 psi, 5-min 2411 psi. Start flowback on 12/64" ck for 4-1/2 hrs & died.

PERFORATION RECORD

Date	Interval	Tool	Holes
11/14/97	5708'-5710'	4 JSPF	8 holes
11/14/97	5731'-5736'	4 JSPF	20 holes
11/14/97	5738'-5748'	4 JSPF	40 holes
11/14/97	5766'-5773'	4 JSPF	28 holes
11/14/97	5755'-5765'		misfire
11/16/97	5382'-5387'	4 JSPF	20 holes
11/16/97	5390'-5398'	4 JSPF	32 holes
11/16/97	5403'-5413'	4 JSPF	40 holes
11/16/97	5422'-5436'	4 JSPF	56 holes
11/19/97	5172'-5177'	4 JSPF	20 holes
11/19/97	5181'-5186'	4 JSPF	20 holes
11/19/97	5190'-5193'	4 JSPF	12 holes



Inland Resources Inc.

Tar Sands Federal #1-33

627 FNL 665 FEL

NENE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31863; Lease #U-76241

Attachment E-6

Tar Sands Federal #5-33

Spud Date: 8/6/96
Put on Production: 9/20/96
GL: 5131' KB: 5144'

Initial Production: 163 BOPD,
109 MCFPD, 3 BWPD

Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (289.32')
DEPTH LANDED: 288.22' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cmt, est 3 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 139 jts. (5905.74')
DEPTH LANDED: 5901.75' KB
HOLE SIZE: 7-7/8"
CEMENT DATA: 390 sk Hyfill mixed & 340 sxs thixotropic
CEMENT TOP AT: Surface per CBL

most > 80% to 2680

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 189 jts
TUBING ANCHOR: 4825'
SEATING NIPPLE: 2-7/8" (1.10')
TOTAL STRING LENGTH: ? (EOT @ 5294')
SN LANDED AT: 5139'

SUCKER RODS

POLISHED ROD: 1-1/2" x 22' SM
SUCKER RODS: 4-3/4" scraped, 99-3/4" plain rods, 98-3/4" scraped
PUMP SIZE: 2-1/2" x 1-1/2" x 12 x 16 RHAC
STROKE LENGTH: 84"
PUMP SPEED, SPM: 7 SPM
LOGS: Dual Laterlog, GR, SP, Spectral Density-Dual Spaced Neutron, CBL-GR

FRAC JOB

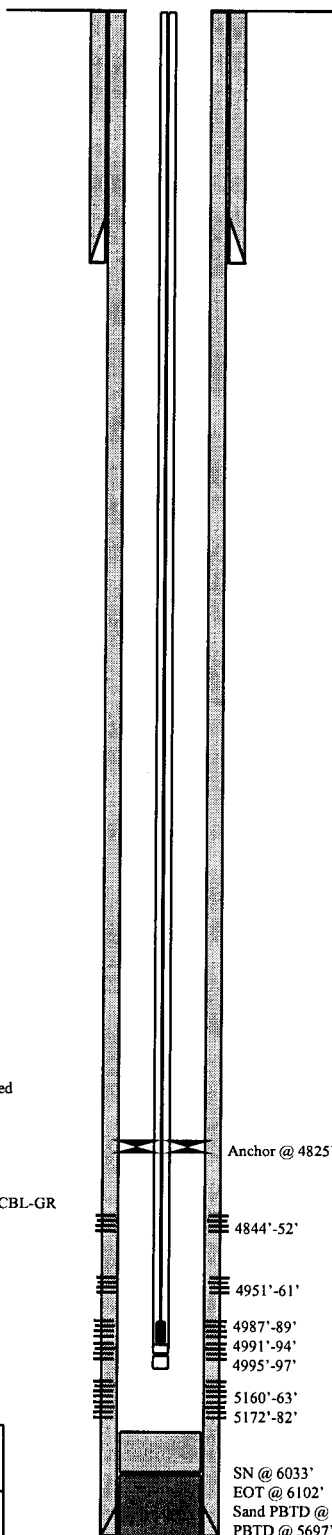
9/12/96 5160'-5182' **Frac B-2 sand as follows:**
37,500# of 20/40 sand in 204 bbls of Boragel. Breakdown @ 3500 psi. Treated @ avg rate of 20.2 bpm w/avg press of 2600 psi. ISIP-3866 psi, 5-min 3647 Flowback on 12/64" ck for 3 hrs and died.

9/13/96 4451'-4997' **Frac C and D-3 sands as follows:**
61,300# of 20/40 sand in 378 bbls of Boragel. Breakdown @ 2660 psi. Treated @ avg rate of 18.4 bpm w/avg press of 2200 psi. ISIP-2633 psi, 5-min 1908 psi. Flowback on 12/64" ck for 1-1/2 hrs and died.

9/16/96 4844'-4852' **Frac D-1 sand as follows:**
49,000# of 20/40 sand in 305 bbls of Boragel. Breakdown @ 1141 psi. Treated @ avg rate of 17.5 bpm w/avg press of 1200 psi. Job screened out w/8.5 PPG slurry @ perms, est 49,000# sand in formation and 1400# left in csg. ISIP-4019 psi, 5-min 3493 psi. Well bleed to 0# in 15 min.

PERFORATION RECORD

Date	Interval	Tool	Holes
9/10/96	5160'-5163'	4 JSPF	12 holes
9/10/96	5172'-5182'	4 JSPF	40 holes
9/13/96	4987'-4989'	4 JSPF	8 holes
9/13/96	4991'-4994'	4 JSPF	12 holes
9/13/96	4995'-4997'	4 JSPF	8 holes
9/13/96	4951'-4961'	4 JSPF	40 holes
9/16/96	4844'-4852'	4 JSPF	32 holes



Anchor @ 4825'

4844'-52'

4951'-61'

4987'-89'

4991'-94'

4995'-97'

5160'-63'

5172'-82'

SN @ 6033'

EOT @ 6102'

Sand PBD @ 5697'

PBTD @ 5697'

TD @ 5900'



Inland Resources Inc.

Tar Sands Federal #5-33

738 FWL 1835 FNL

SWNW Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31665; Lease #U-74870

Attachment E-7

Tar Sands Federal #6-33

Spud Date: 4/7/97
Put on Production: 6/10/97
GL: 5149' KB: 5162'

Initial Production: 135,
197 MCFPD, 13 BWPD

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (286.27')
DEPTH LANDED: 285.37' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cmt, est 5 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 140 jts. (5926.66')
HOLE SIZE: 7-7/8"
CEMENT DATA: 385 sxs Hibond mixed & 315 sxs thixotropic
CEMENT TOP AT: 664' per CBL
LANDED: 5902' KB

most > 40% to 2900

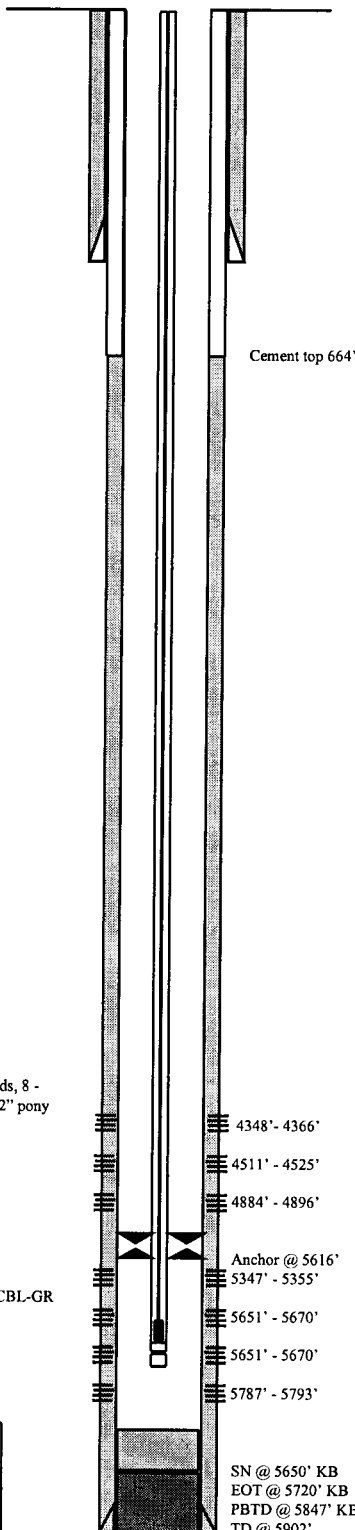
TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 184 jts
TUBING ANCHOR: 5616' KB
SEATING NIPPLE: 2-7/8" (1.10')
TOTAL STRING LENGTH: ? (EOT @ 5720')
SN LANDED AT: 5650' KB

SUCKER RODS

POLISHED ROD: 1-1/2" x 22' SM
SUCKER RODS: 4 - 3/4" pony, 99 - 3/4" scraped, 104 - 3/4" plain rods, 8 - 3/4" scraped, 5 - 3/4" plain, 5 - 7/8" plain, 4 - 1" scraped, 1 - 8x1-1/2" pony rods.
TOTAL ROD STRING LENGTH: ?
PUMP NUMBER: ?
PUMP SIZE: 2-1/2" x 1-1/2" x 15' RHAC
STROKE LENGTH: 64"
PUMP SPEED, SPM: 7 SPM
LOGS: Dual Laterlog, GR, SP, Spectral Density-Dual Spaced Neutron, CBL-GR

Wellbore Diagram



FRAC JOB

5/28/97 5651'-5793' **Frac D-1 sand as follows:**
131,800# of 20/40 sand in 624 bbls of Boragel. Breakdown @ 3409 psi. Treated @ avg rate 32.5 bpm w/avg press of 1700 psi. ISIP 1860 psi. 5-min 1675 psi. Start flowback on 12/64" ck after 5 min. Flowed for 4 hrs and died.

5/28/97 5347'-5355' **Frac A sand as follows:**
88,300# of 20/40 sand in 415 bbls of Boragel. Breakdown @ 2313 psi. Treated @ avg rate 27 bpm w/avg press of 2500 psi. ISIP 3735 psi. 5-min 3249 psi. Flowback after 5 min on 12/64" ck. Flowed for 3 hrs & died.

5/30/97 4884'-4896' **Frac D sand as follows:**
115,500# of 20/40 sand in 525 bbls of Boragel. Breakdown @ 3269 psi. Treated @ avg rate 25.2 bpm w/avg press of 2100 psi. ISIP 2755 psi. 5-min 2682 psi. Flowback after 5 min on 12/64" ck. Flowed for 3 - 1/2 hrs & died.

6/2/97 4348'-4525' **Frac GB/PB sand as follows:**
165,800# of 20/40 sand in 666 bbls of Boragel. Breakdown @ 2630 psi. Treated @ avg rate 35.3 bpm w/avg press of 2275 psi. ISIP 2847 psi. 5-min 2763 psi. Flowback after 5 min on 12/64" ck. Flowed for 7 hrs & died.

PERFORATION RECORD

Date	Interval	Tool	Holes
5/27/97	5651' - 5670'	2 JSPF	38 holes
5/27/97	5787' - 5793'	4 JSPF	24 holes
5/29/97	5347' - 5355'	4 JSPF	32 holes
5/31/97	4884' - 4890'	4 JSPF	24 holes
5/31/97	4893' - 4896'	4 JSPF	12 holes
6/03/97	4511' - 4514'	4 JSPF	12 holes
6/03/97	4521' - 4525'	4 JSPF	16 holes
6/03/97	4348' - 4366'	2 JSPF	36 holes



Inland Resources Inc.

Tar Sands Federal #6-33

1929 FNL 1882 FWL

SENW Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31814; Lease #U-76241

Attachment E-8

Harbortown Federal #42-33

Wellbore Diagram

SURFACE CASING

CSG SIZE:

GRADE:

WEIGHT:

LENGTH:

DEPTH LANDED:

HOLE SIZE:

CEMENT DATA:

PRODUCTION CASING

CSG SIZE:

GRADE:

WEIGHT:

LENGTH:

HOLE SIZE:

CEMENT DATA:

CEMENT TOP AT:

SET AT:

GAP IN LOG
7500 TO 4000'
GOOD BOND TO 1450'

TUBING

SIZE/GRADE/WT.:

NO. OF JOINTS:

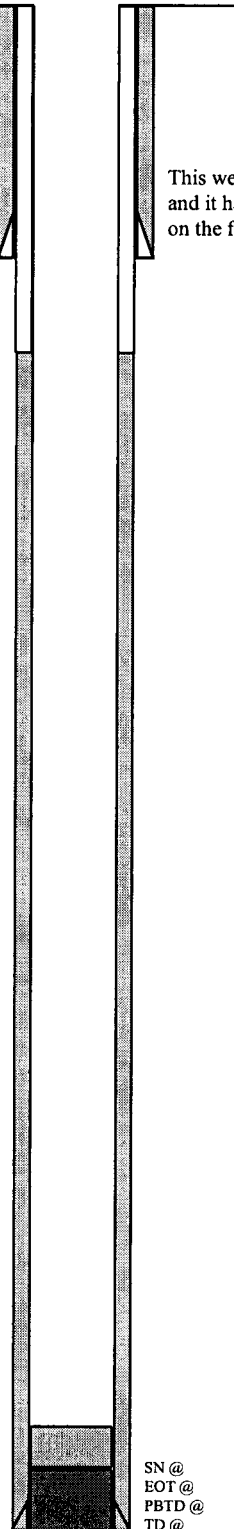
TUBING ANCHOR:

SEATING NIPPLE:

TOTAL STRING LENGTH: ?

SN LANDED AT:

This well is not operated by Inland Production Company,
and it has not been completed. See fax from State of Utah DOGM
on the following page for verification.



SN @
EOT @
PBT @
TD @



Inland Resources Inc.

Harbortown Federal #7-33

SENE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31915; Lease #



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

UTAH DIVISION OF OIL, GAS AND MINING
FACSIMILE COVER SHEET

DATE: 7-27-99
FAX #: 303 382 4454
ATTN: MIKE MITALSEVICH
COMPANY: INLAND
DEPARTMENT: _____
NUMBER OF PAGES: (INCLUDING THIS ONE) 1
FROM: VICKY DYSON

If you do not receive all of the pages, or if they are illegible, please call (801)538-5340.
We are sending from a sharp facsimile machine. Our telecopier number is (801)359-3940.

MESSAGES:

HARBOUTOWN FED 42-33 43 013 31915
85 17E 33 IS CONFIDENTIAL FOR 12 MONTHS
AFTER COMPLETION. TO DATE, WELL HAS NOT
COMPLETED.

Important: This message is intended for the use of the individual or entity of which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return this original message to us at the above address via regular postal service. Thank you.

Received Time Jul.27. 9:49AM

UNICHEM

A Division of BJ Services

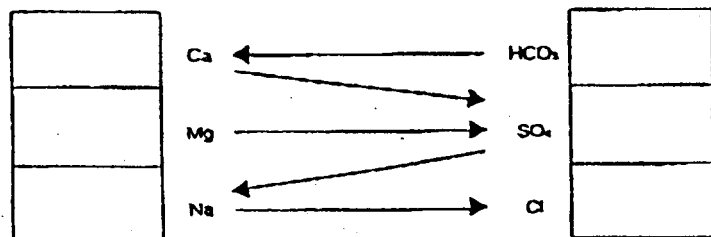
Attachment F

P.O. Box 217
Roosevelt, Utah 84066Office (801) 722-5066
Fax (801) 722-5727**WATER ANALYSIS REPORT**

Company INLAND Address _____ Date 01-14-98
 Source Johnson Water Date Sampled _____ Analysis No. _____
FRESH WATER

	Analysis	mg/l(ppm)	*Meq/l
1. PH	<u>7.0</u>		
2. H ₂ S (Qualitative)	<u>0.5</u>		
3. Specific Gravity	<u>1.001</u>		
4. Dissolved Solids		<u>593</u>	
5. Alkalinity (CaCO ₃)		CO ₃ <u>0</u> ÷ 30 <u>0</u> CO ₃	
6. Bicarbonate (HCO ₃)		HCO ₃ <u>300</u> ÷ 61 <u>5</u> HCO ₃	
7. Hydroxyl (OH)		OH <u>0</u> ÷ 17 <u>0</u> OH	
8. Chlorides (Cl)		Cl <u>35</u> ÷ 35.5 <u>1</u> Cl	
9. Sulfates (SO ₄)		SO ₄ <u>110</u> ÷ 48 <u>2</u> SO ₄	
10. Calcium (Ca)		Ca <u>44</u> ÷ 20 <u>2</u> Ca	
11. Magnesium (Mg)		MG <u>22</u> ÷ 12.2 <u>2</u> Mg	
12. Total Hardness (CaCO ₃)		<u>200</u>	
13. Total Iron (Fe)		<u>2.2</u>	
14. Manganese			
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION**Saturation Values**CaCO₃CaSO₄ · 2H₂OMgCO₃**Distilled Water 20°C**

13 Mg/l

2,090 Mg/l

103 Mg/l

Compound	Eqvly. Wt.	X	Meq/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	<u>2</u>			<u>162</u>
CaSO ₄	68.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17	<u>2</u>			<u>146</u>
MgSO ₄	60.19				
MgCl ₂	47.62				
NaHCO ₃	64.00	<u>1</u>			<u>84</u>
Na ₂ SO ₄	71.03	<u>2</u>			<u>142</u>
NaCl	58.46	<u>1</u>			<u>59</u>

REMARKS _____

435 722 5727

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066

Attachment F-1

Office (435) 722-5066

Fax (435) 722-5727

WATER ANALYSIS REPORTCompany INLAND PRODUCTION

Address _____

8-17-99
Date _____Source TAR SANDS 6-33

Date Sampled _____

Analysis No. _____

Analysis

8.8

mg/l(ppm)

*Mg/l

1. PH

2. H₂S (Qualitative)

3. Specific Gravity

4. Dissolved Solids

5. Alkalinity (CaCO₃)6. Bicarbonate (HCO₃)

7. Hydroxyl (OH)

8. Chlorides (Cl)

9. Sulfates (SO₄)

10. Calcium (Ca)

11. Magnesium (Mg)

12. Total Hardness (CaCO₃)

13. Total Iron (Fe)

14. Manganese

15. Phosphate Residuals

	13,727	
CO ₃	0	+ 30 0 CO ₃
HCO ₃	1,100	+ 61 18 HCO ₃
OH	0	+ 17 0 OH
Cl	7,430	+ 35.5 209 Cl
SO ₄	0	+ 48 0 SO ₄
Ca	16	+ 20 1 Ca
Mg	0	+ 12.2 0 Mg
	40	
	1.6	
	0	

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

1	Ca	HCO ₃	18
0	Mg	SO ₄	0
226	Na	Cl	209

Saturation Values

CaCO₃CaSO₄ · 2H₂OMgCO₃

Distilled Water 20°C

13 Mg/l

2,090 Mg/l

103 Mg/l

Compound	Eqvly. Wt.	X	Mg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	1			81
CaSO ₄	68.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62				
NaHCO ₃	84.00	17			1,428
Na ₂ SO ₄	71.03				
NaCl	58.46	209			12,218

REMARKS _____

Received Time Aug. 18. 10:51AM

435 722 5727

Attachment F-2

AQUAMIX SCALING PREDICTIONS

COMPANY: INLAND PRODUCTION CO
 LOCATION:
 SYSTEM:

8-17-99

WATER DESCRIPTION:	JOHNSON WATER	TAR SANDS 6-33
P-ALK AS PPM CaCO ₃	0	0
M-ALK AS PPM CaCO ₃	492	1804
SULFATE AS PPM SO ₄	110	0
CHLORIDE AS PPM Cl	35	7430
HARDNESS AS PPM CaCO ₃	0	0
CALCIUM AS PPM CaCO ₃	110	40
MAGNESIUM AS PPM CaCO ₃	90	0
SODIUM AS PPM Na	92	5198
BARIUM AS PPM Ba	0	0
STRONTIUM AS PPM Sr	0	0
CONDUCTIVITY	0	0
TOTAL DISSOLVED SOLIDS	593	13727
TEMP (DEG-F)	100	100
SYSTEM pH	7	8.8

WATER COMPATIBILITY CALCULATIONS
 JOHNSON WATER AND TAR SANDS 6-33
 CONDITIONS: pH=7.9. TEMPERATURE ESTIMATED FROM COMPONENT WATERS.

WATER ONE IS JOHNSON WATER

% #/	STIFF DAVIS CaCO ₃ INDEX	lbs/1000 BBL EXCESS CaCO ₃	mg/l BaSO ₄ IN EXCESS OF SATURATION	mg/l SrO ₄ IN EXCESS OF SATURATION	mg/l Gypsum IN EXCESS OF SATURATION
100	.71	29	0	0	0
90	.72	28	0	0	0
80	.70	26	0	0	0
70	.67	23	0	0	0
60	.62	21	0	0	0
50	.57	18	0	0	0
40	.50	16	0	0	0
30	.43	13	0	0	0
20	.35	10	0	0	0
10	.26	7	0	0	0
0	.19	4	0	0	0

Received Time Aug.18. 10:51AM

Attachment "G"

**Tar Sands Federal #7-33-8-17
Proposed Maximum Injection Pressure**

Frac Interval (feet)		Avg. Depth (feet)	ISIP (psi)	Calculated Frac Gradient (psi/ft)	Pmax
Top	Bottom				
5705	5776	5741	1791	0.745	1768 ←
5100	5187	5144	2156	0.852	2127
4406	4419	4413	2205	0.933	2192
				Minimum	<u><u>1768</u></u>

Calculation of Maximum Surface Injection Pressure

$P_{max} = (\text{Frac Grad} - (0.433 \times 1.005)) \times \text{Depth of Top Perf}$
 where pressure gradient for the fresh water is .433 psi/ft and
 specific gravity of the injected water is 1.005.

$\text{Frac Gradient} = (\text{ISIP} + (0.433 \times \text{Avg. Depth})) / \text{Avg. Depth}$



DAILY COMPLETION REPORT

WELL NAME Tar Sands Federal 7-33 Report Date 11/15/97 Completion Day 2
 Present Operation Perf B sands. Rig Flint #2

WELL STATUS

Surf Csg: 8-5/8 @ 298' KB Liner @ Prod Csg 5-1/2 @ 5877 Csg PBTD 5838
 Tbg: Size 2-7/8 Wt 6.5 Grd M-50 Pkr/EOT @ BP/Sand PBTD:

PERFORATION RECORD

Zone	Perfs	SPF/#shots	Zone	Perfs	SPF/#shots
CP	5705-08'	4/12			
CP	5711-19'	4/32			
CP	5766-70'	4/16			
CP	5772-76'	4/16			

CHRONOLOGICAL OPERATIONS

Date Work Performed: 11/14/97 SITP: SICP 25

Bleed gas off csg. IFL @ 5000', made 5 swb runs, rec 16 BTF w/tr oil, FFL @ 5800'. TOH w/tbg. NU isolation tool. RU Halliburton & frac CP sd w/95,300# 20/40 sd in 513 bbls Delta frac. Perfs broke dn @ 2516 psi. Treated @ ave press of 1550 psi w/ave rate of 28.1 bpm. ISIP: 1791 psi, 5 min: 1665 psi. Flowback on 12/64" ck for 3-1/2 hrs & died. Rec 156 BTF (est 30% of load). SIFN w/est 357 BWTR.

FLUID RECOVERY (BBLs)

Starting fluid load to be recovered	513	Starting oil rec to date	0
Fluid lost/recovered today	156	Oil lost/recovered today	0
Ending fluid to be recovered	357	Cum oil recovered	0
IFL 5000 FFL 5800 FTP		Choke 12/64 Final Fluid Rate	Final oil cut Tr.

STIMULATION DETAIL

Base Fluid used: Delta Frac Job Type: Sand Frac
 Company: Halliburton
 Procedure: 3000 gal of pad.
1000 gal w/1-6 ppg of 20/40 sd
8000 gal w/6-8 ppg of 20/40 sd
3952 gal w/8-10 ppg of 20/40 sd
Flush w/5591 gal of 10# Linear gel

COSTS

Flint rig	1,319
BOP	135
Tanks	60
Wtr	750
HO Trk	439
Frac	22,807
Flowback - super	150
IPC Supervision	200

Max TP	2700	Max Rate	28.4	Total fluid pmpd:	513 bbls
Avg TP	1550	Avg Rate	28.1	Total Prop pmpd:	95,300#
ISIP	1791	5 min	1665	10 min	15 min

Completion Supervisor: Gary Dietz

DAILY COST:	\$25,860
TOTAL WELL COST:	\$202,501



DAILY COMPLETION REPORT

WELL NAME Tar Sands Federal 7-33 **Report Date** 11/18/97 **Completion Day** 4
Present Operation Perf GB sands. **Rig** Flint #2

WELL STATUS

Surf Csg: 8-5/8 @ 298' **KB** **Liner** @ 5-1/2 **Prod Csg** @ 5877 **Csg PBTD** 5835
Tbg: **Size** 2-7/8 **Wt** 6.5 **Grd** M-50 **Pkr/EOT** @ BP **Sand PBTD:** 5380

PERFORATION RECORD

Zone	Perfs	SPF/#shots	Zone	Perfs	SPF/#shots
B	5100-07'	4/28			
B	5181-87'	4/24			
CP	5705-08'	4/12			
CP	5711-19'	4/32			
CP	5766-70'	4/16			
CP	5772-76'	4/16			

CHRONOLOGICAL OPERATIONS

Date Work Performed: 11/17/97 **SITP:** 100 **SICP:** 150
 Bleed gas off well. IFL @ 2500', made 2 swb runs, rec 23 BTF (est 20 BO, 3 BW), FOC @ 70%, FFL @ 3000'. TOH w/tbg. NU isolation tool. RU Halliburton & frac B sd w/115,300# 20/40 sd in 555 bbls Delta Frac. Perfs broke dn @ 2340 psi. Treated @ ave press of 1730 psi w/ave rate of 26 bpm. ISIP: 2156 psi, 5 min: 2027 psi. Flowback on 12/64" choke for 4 hrs & died. Rec 264 BTF (est 47% of load). SIFN w/est 530 BWTR.

FLUID RECOVERY (BBLs)

Starting fluid load to be recovered	242	Starting oil rec to date	21
Fluid lost recovered today	288	Oil lost recovered today	20
Ending fluid to be recovered	530	Cum oil recovered	41
IFL 2500 FFL 3000 FTP		Choke 12/64 Final Fluid Rate	Final oil cut 70%

STIMULATION DETAIL

Base Fluid used: Delta Frac **Job Type:** Sand Frac
Company: Halliburton
Procedure:
3500 gal of pad
1000 gal w/1-6 ppg of 20/40 sd
8000 gal w/6-8 ppg of 20/40 sd
4000 gal w/8-10 ppg of 20/40 sd
1816 gal w/10 ppg of 20/40 sd
Flush w/5007 gal of 10# Linear gel.

COSTS

Flint rig	934
BOP	135
Tanks	60
Wtr	750
HO Trk	450
Frac	22,614
Flowback - super	150
IPC Supervision	200

Max TP	2480	Max Rate	26.7	Total fluid pmpd:	555 bbls
Avg TP	1730	Avg Rate	26	Total Prop pmpd:	115,300#
ISIP	2156	5 min	2027	10 min	15 min
Completion Supervisor: <u>Gary Dietz</u>					

DAILY COST:	\$25,293
TOTAL WELL COST:	\$232,396



DAILY COMPLETION REPORT

WELL NAME Tar Sands Federal 7-33 Report Date 11/20/97 Completion Day 6
 Present Operation Pull plugs. CO to PBTD. Rig Flint #2

WELL STATUS

Surf Csg: 8-5/8 @ 298' KB Liner @ Prod Csg 5-1/2 @ 5877 Csg PBTD 5835
 Tbg: Size 2-7/8 Wt 6.5 Grd M-50 Pkr/EOT @ BP Sand PBTD: 4575

PERFORATION RECORD

Zone	Perfs	SPF/#shots	Zone	Perfs	SPF/#shots
GB	4406-19'	4/52	CP	5772-76'	4/16
B	5100-07'	4/28			
B	5181-87'	4/24			
CP	5705-08'	4/12			
CP	5711-19'	4/32			
CP	5766-70'	4/16			

CHRONOLOGICAL OPERATIONS

Date Work Performed: 11/19/97 SITP: 0 SICP 0

IFL @ 4100'. Made 4 swab runs, rec 6 BTF w/tr oil. FFL @ 4400'. TOH w/tbg. NU isolation tool. RU Halliburton & frac GB sds w/88,300# 20/40 sd in 457 bbls Delta frac. Perfs broke dn @ 3024 psi. Treated @ ave press of 1800 psi w/ave rate of 24.1 BPM. ISIP: 2205 psi, 5 min: 2137 psi. Flowback on 12/64" choke for 3 hrs & died. Rec 140 BTF (est 31% of load). SIFN w/est 747 BWTR.

FLUID RECOVERY (BBLs)

Starting fluid load to be recovered	436	Starting oil rec to date	41
Fluid lost/recovered today	311	Oil lost/recovered today	0
Ending fluid to be recovered	747	Cum oil recovered	41
IFL 4100 FFL 4400 FTP		Choke 12/64 Final Fluid Rate	Final oil cut Tr.

STIMULATION DETAIL

COSTS

Base Fluid used: Delta Frac Job Type: Sand Frac
 Company: Halliburton
 Procedure:
 3000 gal of pad.
 1000 gal w/1-6 ppg of 20/40 sd
 7000 gal w/6-8 ppg of 20/40 sd
 3894 gal w/8-10 ppg of 20/40 sd
 Flush w/4300 gal of 10# Linear gel.

Flint rig	1,190
BOP	135
Tanks	60
Wtr	600
Frac	19,930
Flowback - super	150
IPC Supervision	200

Max TP	3024	Max Rate	24.5	Total fluid pmpd:	457 bbls
Avg TP	1800	Avg Rate	24.1	Total Prop pmpd:	88,300#
ISIP	2205	5 min	2137	10 min	15 min
Completion Supervisor:	Gary Dietz				

DAILY COST:	\$22,265
TOTAL WELL COST:	\$258,944

ATTACHMENT H

WORK PROCEDURE FOR PLUGGING AND ABANDONMENT

1. **Plug #1** **Set 221' plug from 5605'-5826' with 36 sxs Class "G" cement.**
2. **Plug #2** **Set 237' plug from 5000'-5237' with 38 sxs Class "G" cement.**
3. **Plug #3** **Set 163' plug from 4306'-4469' with 29 sxs Class "G" cement.**
4. **Plug #4** **Set 200' plug from 2000'-2200' with 25 sxs Class "G" cement.**
5. **Plug #5** **Set 100' plug from 238'-338' (50' on either side of casing shoe) with 15 sxs Class "G" cement.**
6. **Plug #6** **Set 50' plug from surface with 10 sxs Class "G" cement.**
7. **Pump 50 sxs Class "G" cement down the 8-5/8" x 5-1/2" annulus.**

The approximate cost to plug and abandon this well is \$18,00

Attachment H-1

Tar Sands Federal #7-33

Spud Date: 4/28/97
Put on Production: 11/22/97
GL: 5113' KB: 5126'

Initial Production: 101 BOPD;
90 MCFD; 0 BWPD

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (290.48')
DEPTH LANDED: 288.56' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cmt, est 8 bbls to surf.

Proposed P & A Wellbore Diagram

10 sxs Class "G" cmt, 50' to surface

50 sxs Class "G" cmt down the 5-1/2" X 8-1/2" casing annulus

15 sxs Class "G" cmt, 238'-338'

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 137 jts. (5878')
HOLE SIZE: 7-7/8"
CEMENT DATA: 295 sxs Hibond mixed & 255 sxs thixotropic
CEMENT TOP AT:
SET AT: 5876'

Cement top

25 sxs Class "G" cmt, 2000'-2200'

29 sxs Class "G" cmt, 4306'-4469'

38 sxs Class "G" cmt, 5000'-5237'

36 sxs Class "G" cmt, 5605'-5826'

PBTD @ 5835'
TD @ 5900''



Inland Resources Inc.

Tar Sands Federal #7-33

1943 FNL 2009 FEL

SWNE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31860; Lease #UTU-77234



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 6, 2000

Inland Production Company
410 Seventeenth Street, Suite 700
Denver, Colorado 80202

Re: Blackjack Unit Well: Tar Sands Federal 7-33, Section 33, Township 8 South, Range 17
East, Duchesne County, Utah

Gentlemen:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Inland Production Company.
3. A casing\tubing pressure test shall be conducted prior to commencing injection.

If you have any questions regarding this approval or the necessary requirements, please contact Brad Hill or Dan Jarvis at this office.

Sincerely,

John R. Baza
Associate Director, Oil and Gas

cc: Dan Jackson, Environmental Protection Agency
Bureau of Land Management, Vernal
Inland Production Company, Myton

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

**PERMIT
STATEMENT OF BASIS**

Applicant: Inland Production Company

Well: Tar Sands Fed. 7-33

Location: 33/8S/17E

API: 43-013-31860

Ownership Issues: The proposed well is located on BLM land. The well is located in the Blackjack Unit. Lands in the one-half mile radius of the well are administered by the BLM. The Federal Government is the mineral owner. Inland and various other individuals hold the leases in the unit. Inland has provided a list of all surface, mineral and lease holders in the half-mile radius. Inland is the operator of the Blackjack Unit. Inland has submitted an affidavit stating that all owners and interest owners have been notified of their intent.

Well Integrity: The proposed well has surface casing set at 288 feet and is cemented to surface. A 5 ½ inch production casing is set at 5878 feet and has a cement bond greater than 80% up to 2646 feet. A 2 7/8 inch tubing with a packer will be set at 4350 feet. A mechanical integrity test will be run on the well prior to injection. There are 8 producing or injection wells in the area of review. All of the wells have adequate casing and cement. No corrective action will be required.

Ground Water Protection: According to Technical Publication No. 92 the base of moderately saline water is at a depth of approximately 200 feet. Injection shall be limited to the interval between 4406 feet and 5776 feet in the Green River Formation. Information submitted by Inland indicates that the fracture gradient for the 7-33 well is .745 psi/ft., which was the lowest reported fracture gradient for the injection zone. The resulting minimum fracture pressure for the proposed injection interval is 1768 psig. The requested maximum pressure is 1768 psig. The anticipated average injection pressure is 1500 psig. Injection at this pressure should not initiate any new fractures or propagate existing fractures in the adjacent confining intervals. Any ground water present should be adequately protected.

Oil/Gas& Other Mineral Resources Protection: The Board of Oil, Gas & Mining approved the Blackjack Unit on November 01, 1999. Correlative rights issues were addressed at that time. Previous reviews in this area indicate that other mineral resources in the area have been protected or are not at issue.

Bonding: Bonded with the BLM

Actions Taken and Further Approvals Needed: A notice of agency action has been sent to the Salt Lake Tribune, the Vernal Express, and the Uinta Basin Standard. A casing/tubing pressure test will be required prior to injection. It is recommended that Administrative approval of this application be granted.

Note: Applicable technical publications concerning water resources in the general vicinity of this project have been reviewed and taken into consideration during the permit review process.

Reviewer(s): Brad Hill

Date: 03/06/00

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF THE	:	NOTICE OF AGENCY
APPLICATION OF INLAND	:	ACTION
PRODUCTION COMPANY FOR	:	
ADMINISTRATIVE APPROVAL OF	:	CAUSE NO. UIC-246
THE TAR SANDS FEDERAL 7-33-8-17	:	
WELL LOCATED IN SECTION 33,	:	
TOWNSHIP 8 SOUTH, RANGE 17	:	
EAST, S.L.M., DUCHESNE COUNTY,	:	
UTAH, AS A CLASS II INJECTION	:	
WELL	:	

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED
MATTER.

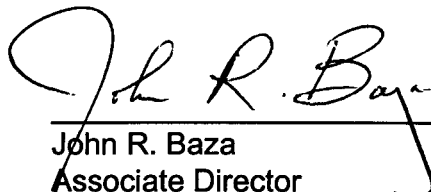
Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Inland Production Company for administrative approval of the Tar Sands Federal 7-33-8-17 well, located in Section 33, Township 8 South, Range 17 East, S.L.M., Duchesne County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

The Green River Formation will be selectively perforated for water injection. The maximum injection pressure and rate will be determined on each individual well based on fracture gradient information submitted by Inland Production Company.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 29th day of September 1999.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING



John R. Baza
Associate Director

DATED: September 13, 1999.

Scott Lundberg, Trustee
(801) 263-3400x250
L&A Case No. 14175
Loan No: 50538515

THIS COMMUNICATION IS AN ATTEMPT TO COLLECT A DEBT, AND ANY INFORMATION OBTAINED WILL BE USED FOR THAT PURPOSE.

Published in the Uintah Basin Standard September 21, 28 & October 5, 1999.

MEETING NOTICE INDIAN POLICIES & PROCEDURES HEARING

In conjunction with its regular meeting to be held at the Roosevelt District Office Annex, 256 North 300 West, Roosevelt, Utah, on Tuesday, October 5, 1999, the Board of Education of Duchesne County School District will hold an information meeting and Indian Policies & Procedures Hearing at 8:00 P.M. The Ute Indian Tribe and Parents of children residing on Indian lands, and all other parents of children attending Duchesne County Schools, are invited/encouraged to attend. School officials will answer questions and receive input/suggestions for the improvement of school programs. Parents are encouraged to make recommendations concerning the needs of their children and ways they can assist their children in realizing the benefits to be derived from the educational programs of the Duchesne County Schools.

Published in the Uintah Basin Standard September 28 & October 5, 1999.

NOTICE OF MEETING OF THE BOARD OF ADJUSTMENT OF DUCHESNE

2.71 RODS TO ABOVE DESC LAND FOR INGRESS AND EGRESS. SEC 25, T1S, R2W, USM 2.41 AC.

Duchesne County Planning Commission

Attest: Clayton B. Chidester

For further information contact Clayton B. Chidester, Planning & Community Development, at (435) 738-1151, 722-3997, or within Uintah Basin 822-4680 all at extension 151. Or send written comment to Duchesne County Planning Department, P.O. Box 317, Duchesne, Utah 84021. This notice was published in the Uintah Basin Standard on September 28, 1999 & October 5, 1999. Pursuant to U.C.A. 52-4-6.

Published in the Uintah Basin Standard September 28 & October 5, 1999.

INVITATION TO BID

The Uintah Basin Assistance Council is accepting sealed bids for the construction of a Duplex, located at 935 West 100 North, Vernal, Utah. The Construction must be accomplished pursuant to all State and Local Rules and Regulations governing the work. Bidders must provide a copy of their contractors license, provide appropriate liability insurance and must have the capabilities of providing a payment and performance bond. Additional information may be obtained by contacting Jolene Daniels, Director, Uintah Basin Assistance Council, 53 East 100 North, Roosevelt, Utah 84066. Bids must be received no later than 4:00 p.m. October 14, 1999. Bids will be publicly opened at 12:00 Noon on October 18, 1999, at the same address above. The Uintah Basin Assistance Council reserves the right to accept or reject any or all bids or to accept a bid other than the low bid if its in the best interest of the project. The Uintah Basin Assistance Council is an Equal Opportunity Employer.

Published in the Uintah Basin Standard September 28 & October 5, 1999.

= USE)

43-10961 (A72329): Rhonda Buttrick, Robin Buttrick, Rhea Espinoza QUANTITY: 3.73 ac-ft. SOURCE: 6 in. Well 100 ft. To 500 ft. deep. POD: (1) N150E800 from S1/4 Cor, Sec 29, T1S, R2W. (Lot 18 Deer Haven Subdivision) USE: Irrigation: from Apr 1 to Oct 31, total acreage 1.0000 acs; Stockwatering: 10 head of livestock; Domestic: 1 family. POU: SW1/4SE1/4 Sec 29, T1S, R2W, SLB&M.

43-10966 (A72366): Circle L Ranches Inc. QUANTITY: 1.95 ac-ft. SOURCE: 6 in. Well 25 ft. To 300 ft. deep. POD: (1) S540E40 from W1/4 Cor, Sec 33, T1N, R1W. (Neola) USE: Irrigation: from Apr 1 to Oct 31, total acreage 0.5000 acs; Domestic: 1 family. POU: NW1/4SW1/4 Sec 33, T1N, R1W.

43-10970 (A72374): Kenyon and Leslie Zager QUANTITY: 3.73 ac-ft. SOURCE: 6 in. Well 30 ft. To 100 ft. deep. POD: (1) N1150W900 from SE Cor, Sec 8, T1S, R1W. (2 Miles South of Neola) USE: Irrigation: from Apr 1 to Oct 31, total acreage 1.0000 acs; Stockwatering: 10 head of livestock; Domestic: 1 family. POU: SE1/4SE1/4 Sec 8, T1S, R1W.

43-10972 (A72378): Wes and Maria Sargent QUANTITY: 3.73 ac-ft. SOURCE: 6 in. Well 200 ft. To 400 ft. deep. POD: (1) N200E1050 from SW Cor, Sec 21, T2S, R4W. (8 North of Duchesne) USE: Irrigation: from Apr 1 to Oct 31, total acreage 1.0000 acs; Stockwatering: 10 head of livestock; Domestic: 1 family. POU: SW1/4SW1/4 Sec 21, T2S, R4W.

43-10973 (A72384): Darrell & Darlene Wallberg QUANTITY: 1.48 ac-ft. SOURCE: 6 in. well 100 ft. To 300 ft. deep. POD: (1) S575W1825 from NE Cor, Sec 8, T2S, R2W. (Blue Bell) USE: Irrigation: from Apr 1 to Oct 31, total acreage 0.2500 acs; Stockwatering: 10 head of livestock; Domestic: 1 family. POU: NE1/4NE1/4 Sec 8, T2S, R2W

Robert L. Morgan, P.E.
STATE ENGINEER

Published in the Uintah Basin Standard September 28 & October 5, 1999.

UINTAH BASIN STANDARD, October 5, 1999- Page 7

NOTICE OF AGENCY ACTION CAUSE NO. UIC-246

IN THE MATTER OF THE APPLICATION OF INLAND PRODUCTION COMPANY FOR ADMINISTRATIVE APPROVAL OF THE TARSANDS FEDERAL 7-33-8-17 WELL LOCATED IN SECTION 33, TOWNSHIP 8 SOUTH, RANGE 17 EAST, S.L.M., DUCHESNE COUNTY, UTAH, AS A CLASS II INJECTION WELL

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Inland Production Company for administrative approval of the Tar Sands Federal 7-33-8-17 well, located in Section 33, Township 8 South, Range 17 East, S.L.M., Duchesne County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

The Green River Formation will be selectively perforated for water injection. The maximum injection pressure and rate will be determined on each individual well based on fracture gradient information submitted by Inland Production Company.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board

of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 29th day of September 1999.

STATE OF UTAH
DIVISION OF OIL,
GAS & MINING

John R. Baza
Associate Director
Published in the Uintah Basin Standard October 5, 1999.

PUBLIC NOTICE

Uintah School District will be holding a Title IX public meeting **Monday, October 18, 1999, at 9:00 a.m., in the Media Center at West Jr. High School.** The purpose of this meeting will be to review and receive recommendations for the Title IX services.

Uintah School District will be holding an Impact Aid (Section 8003) public meeting on **Monday, October 18, 1999, at 9:00 a.m., in the Media Center at West Jr. High School.** This meeting will be held in conjunction with the Title IX meeting for the purpose of reviewing the Impact Aid application and receiving information from parents of Indian students and from tribal officials regarding the progress they feel their students are making in school.

Published in the Uintah Basin Standard October 5 & 13, 1999.

PUBLIC NOTICE

CHILD CARE CENTERS AND SPONSORS OF CENTERS

UTAH STATE OFFICE OF EDUCATION

The Uintah School District, 210 S. 100 W., Vernal, UT 84078 announces the

Continued on next page

RENTING NOW!

2 and 3 Bedroom apartments
also student apartments
No Pets Phone
772-0734 or 772-4403

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
ENTITY ACTION FORM -FORM 6

OPERATOR: INLAND PRODUCTION COMPANY
ADDRESS: RT. 3 BOX 3630
MYTON, UT 84052

OPERATOR ACCT. NO. N5160

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	11976	12704	43-013-31664	Tar Sands Federal #4-33	NWNW	33	8S	17E	Duchesne		3/1/2000
WELL 2 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added.</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	11977	12704	43-013-31665	Tar Sands Federal #5-33	SWNW	33	8S	17E	Duchesne		3/1/2000
WELL 2 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added.</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	12099	12704	43-013-31814	Tar Sands Federal #6-33	SENW	33	8S	17E	Duchesne		3/1/2000
WELL 3 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added.</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	12086	12704	43-013-31757	Tar Sands Federal #12-33	NWSW	33	8S	17E	Duchesne		3/1/2000
WELL 4 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	12113	12704	43-013-31860	Tar Sands Federal #7-33	SWNE	33	8S	17E	Duchesne		3/1/2000
WELL 5 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added</i>											

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

RECEIVED

MAY 11 2000

**DIVISION OF
OIL, GAS AND MINING**

[Signature]
Signature

Production Clerk
Title

May 9, 2000
Date

STATE OF UTAH

DIVISION OF OIL, GAS, AND MINING

1. SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NO. UTU-77234
Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use "APPLICATION FOR PERMIT TO DRILL OR DEEPEN" form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBAL NAME N/A
OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> Injection Well		7. UNIT AGREEMENT NAME Blackjack
2. NAME OF OPERATOR INLAND PRODUCTION COMPANY		8. WELL NAME and NUMBER TAR SANDS FEDERAL 7-33
3. ADDRESS AND TELEPHONE NUMBER Rt. 3 Box 3630, Myton Utah 84052 435-646-3721		9. API NUMBER 43-013-31860
4. LOCATION OF WELL Footages 1943 FNL 2009 FEL QQ, SEC. T, R, M: SW/NE Section 33, T08S R17E		10. FIELD AND POOL, OR WILDCAT MONUMENT BUTTE
		COUNTY DUCHESNE STATE UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA			
NOTICE OF INTENT: (Submit in Duplicate)		SUBSEQUENT REPORT OF: (Submit Original Form Only)	
<input type="checkbox"/> ABANDON	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> ABANDON*	<input type="checkbox"/> NEW CONSTRUCTION
<input type="checkbox"/> REPAIR CASING	<input type="checkbox"/> PULL OR ALTER CASING	<input type="checkbox"/> REPAIR CASING	<input type="checkbox"/> PULL OR ALTER CASING
<input type="checkbox"/> CHANGE OF PLANS	<input type="checkbox"/> RECOMPLETE	<input type="checkbox"/> CHANGE OF PLANS	<input type="checkbox"/> RECOMPLETE
<input type="checkbox"/> CONVERT TO INJECTION	<input type="checkbox"/> REPERFORATE	<input type="checkbox"/> CONVERT TO INJECTION	<input type="checkbox"/> REPERFORATE
<input type="checkbox"/> FRACTURE TREAT OR ACIDIZE	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> FRACTURE TREAT OR ACIDIZE	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> MULTIPLE COMPLETION	<input type="checkbox"/> WATER SHUT OFF	<input checked="" type="checkbox"/> OTHER Step Rate Test	
<input type="checkbox"/> OTHER _____		DATE WORK COMPLETED _____ Report results of Multiple Completion and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form. *Must be accompanied by a cement verification report.	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depth for all markers and zones pertinent to this work.

A step rate test was conducted on the subject well on 5/1/01. Results indicate that the formation fracture gradient is .744 psi/ft. Therefore, Inland is requesting that the MAIP be changed to 1360 psi.

13. NAME & SIGNATURE: Michael Guinn TITLE District Engineer DATE 5/9/01

(This space for State use only)

4/94

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 05-14-01
By: [Signature]

RECEIVED

DIVISION OF
OIL, GAS AND MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other Injection Well

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

RT 3 Box 3630 Myton Ut 84052, (435) 646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1943 FNL 2009 FEL SW/NE Section 33, T08S R17E

5. Lease Designation and Serial No.

UTU-77234

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

BLACK JACK UNIT

8. Well Name and No.

TAR SANDS FEDERAL 7-33

9. API Well No.

43-013-31860

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE COUNTY, UTAH

12. **CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION

☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☐ Other _____
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☒ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The subject well was converted from a producing to an injection well on 11/18/00. The rods and tubing anchor were removed and a packer was inserted in the bottom hole assembly at 4351'. On 11/20/00 Mr. Dan Jackson with the EPA and Dennis Ingram with the state DOGM were contacted and gave verbal approval to conduct a MIT on the casing - tubing annulus without a witness. On 11/20/00 the casing was pressured to 1020 psi, charted with 10 psi pressure loss in a 1/2 hour test. The well is shut-in and waiting on permission to inject.

14. I hereby certify that the foregoing is true and correct

Signed

Krishna Russell
Krishna Russell

Title

Production Clerk

Date

11/22/00

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

CC: UTAH DOGM



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

UNDERGROUND INJECTION CONTROL PERMIT

Cause No. UIC-246

Operator: Inland Production Company

Well: Tar Sands Federal 7-33

Location: Section 33 , Township 8 South, Range 17 East, Duchesne County

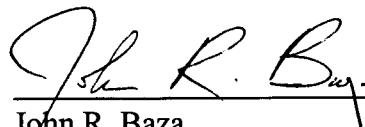
API No.: 43-013-31860

Well Type: Enhanced Recovery (waterflood)

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on March 6, 2000.
2. Maximum Allowable Injection Pressure: 1768 psig
3. Maximum Allowable Injection Rate: (restricted by pressure limitation)
4. Injection Interval: Green River Formation (4406 feet - 5776 feet)

Approved by:


John R. Baza
Associate Director, Oil And Gas

11/28/2000
Date

cc: Dan Jackson Environmental Protection Agency
Bureau of Land Management, Vernal
Inland Production Company, Myton

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

NA

SUBMIT IN TRIPLICATE

1. Type of Well

☐

Oil
Well

☐

Gas
Well

☒

Other Injector

2. Name of Operator

INLAND PRODUCTION COMPANY

3. Address and Telephone No.

Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)

1943 FNL 2009 FEL SW/NE Section 33, T08S R17E

7. If Unit or CA, Agreement Designation

BLACK JACK UNIT

8. Well Name and No.

TAR SANDS FEDERAL 7-33

9. API Well No.

43-013-31860

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE COUNTY, UTAH

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐

Notice of Intent

☒

Subsequent Report

☐

Final Abandonment Notice

TYPE OF ACTION

☐

Abandonment

☐

Recompletion

☐

Plugging Back

☐

Casing Repair

☐

Altering Casing

☒

Other

Report of first injection

☐

Change of Plans

☐

New Construction

☐

Non-Routine Fracturing

☐

Water Shut-Off

☐

Conversion to Injection

☐

Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The above referenced well was put on injection at 9:00 a.m. on 12/29/00.

RECEIVED

DEC 29 2000

DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct

Signed

Martha Hall

Title

Office Manager

Date

12/29/00

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by

Title

Date

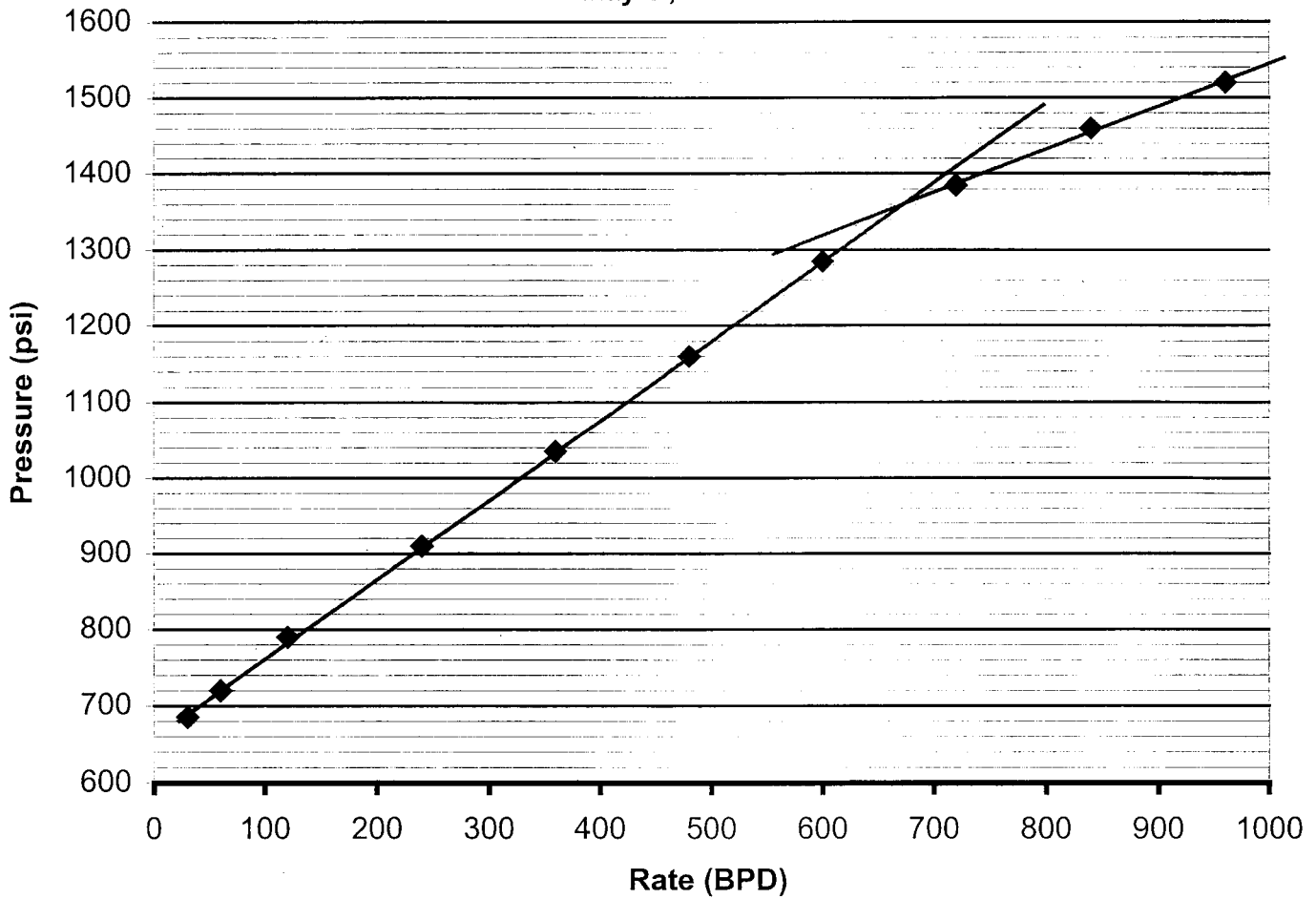
Conditions of approval, if any:

Tar Sands 7-33-8-17

Black Jack Unit

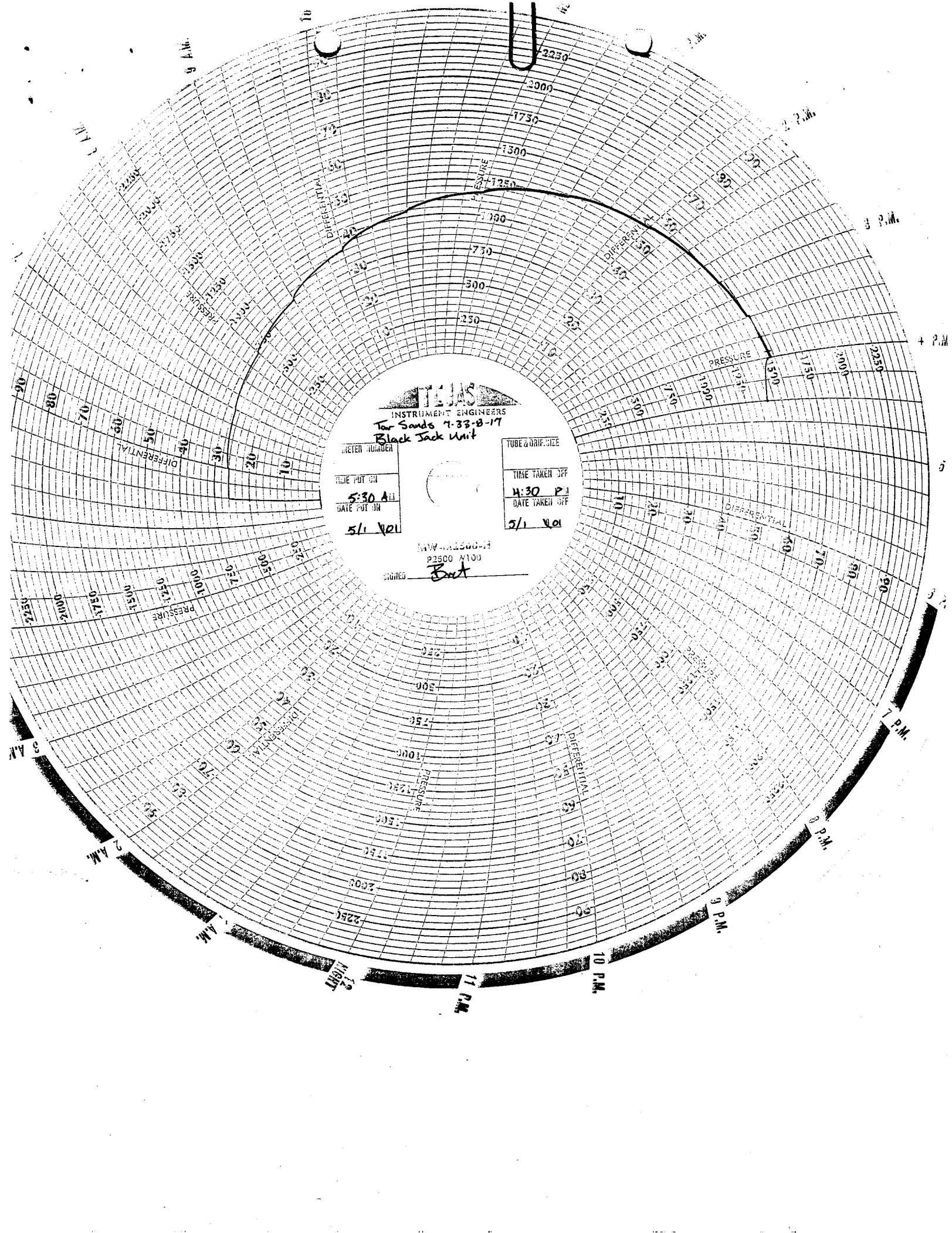
Step Rate Test

May 1, 2001



Start Pressure: 645 psi
Instantaneous Shut In Pressure (ISIP): 1505 psi
Top Perforation: 4406 feet
Fracture pressure (P_{fp}): 1360 psi
FG: 0.744 psi/ft

Step	Rate(bpd)	Pressure(psi)
1	30	685
2	60	720
3	120	790
4	240	910
5	360	1035
6	480	1160
7	600	1285
8	720	1385
9	840	1460
10	960	1520





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

999 18th STREET - SUITE 300

DENVER, CO 80202-2466

<http://www.epa.gov/region08>

JUN - 2 2004

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

David Gerbig
Inland Production Company
410 17th Street, Suite 700
Denver, CO 80202

RECEIVED

JUN - 7 2004

DIV. OF OIL, GAS & MINING

Re: Underground Injection Control Program
Permit for the TAR SANDS FEDERAL #7-33-8-
17 Well
Duchesne County, UT
EPA Permit No. UT20952-04516

Dear Mr. Gerbig:

Enclosed is a Draft Underground Injection Control (UIC) Permit for the TAR SANDS FEDERAL #7-33-8-17 well. Also enclosed are a Statement of Basis which discusses development of the Permit, a copy of the Public Notice and any required Aquifer Exemption.

Environmental Protection Agency (EPA) regulations and procedures for issuing UIC Permits are found in Title 40 of the Code of Federal Regulations Part 124 (40 CFR 124). These regulations and procedures require Public Notice and the opportunity for the public to comment on a proposed UIC Permit and Agency decision.

Public Notice will be published in the following publication(s) to inform the public of their opportunity to comment on this proposed UIC Permit. The comment period will run for thirty (30) days from the latest date of publication. You may call Ms. Jo Taylor at (800) 227-8917 ext. 6152 to obtain the exact deadline for comments.

Ute Bulletin, Ft. Duchesne
Vernal Express, Vernal

The enclosed copies of the Draft Permit, Statement of Basis, and Public Notice are being sent to you so that you have an opportunity to comment on the Draft Permit during the comment period. Notice of the EPA's intent to issue this Permit also may be sent to any surface



Printed on Recycled Paper

landowner who could be affected by this proposed Permit decision.

The Final Permit decision will not be made until after the comment period has closed, and all relevant comments will be taken into consideration. If any substantial comments are received or if any substantial changes are made from the Draft Permit to the Final Permit, the Effective Date of the Final Permit will be delayed for an additional thirty (30) days. This delay is required by 40 CFR 124.15 (b) to allow for potential appeal of the Final Permit decision.

If you have any questions or comments about the enclosed Draft Permit or Statement of Basis please write to Emmett Schmitz at the letterhead address citing "Mail Code 8-P-W-GW", or telephone (800) 227-8917, ext. 6174.

Sincerely,



Sandra A. Stavnes
Director
Ground Water Program

enclosure: Draft Permit
 Draft Statement of Basis
 Public Notice
 EPA Form 7520-07: Application To Transfer Permit
 EPA Form 7520-10: Completion Report
 EPA Form 7520-11: Annual Monitoring Report
 EPA Form 7520-12: Well Rework Record
 EPA Form 7520-14: Plugging Record
 EPA Ground Water Section Guidance No. 37: Part II (External) MI
 EPA Ground Water Section Guidance No. 39: Part I (Internal) MI
 EPA Guidance for Conducting RATS
 EPA Guidance for Conducting Temperature Logging

cc: Maxine Natchees
 Chairperson
 Uintah & Ouray Business Committee
 Ute Indian Tribe
 P.O. Box 190
 Fort Duchesne, UT 84026

Elaine Willie
Environmental Coordinator
Ute Indian Tribe
P.O. Box 460
Fort Duchesne, UT 84026

Mr. Chester Mills
Superintendent
Bureau of Indian Affairs
Uintah & Ouray Indian Agency
P.O. Box 130
Fort Duchesne, UT 84026

Mr. Michael Guinn
Vice President - Operations
Inland Production Company
Route 3 - Box 3630
Myton, UT 84502

Mr. Gil Hunt
Technical Services Manager
State of Utah - Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple - Suite 1220
Salt Lake City, UT 84111-0581

Mr. Jerry Kenczka
Petroleum Engineer
Bureau of Land Management
Vernal, UT 84078

UNDERGROUND INJECTION CONTROL PROGRAM

PUBLIC NOTICE AND OPPORTUNITY TO COMMENT

PROPOSED UNDERGROUND INJECTION CONTROL (UIC) PERMIT

Inland Production Company
1401 Seventeenth Street
Suite 1000
Denver, CO 80202

PURPOSE OF PUBLIC NOTICE

The purpose of this notice is to solicit public comment on a proposal by the Region 8 Ground Water Program office of the U.S. Environmental Protection Agency (EPA) to issue an Underground Injection Control (UIC) Permit that will authorize the underground injection of fluid via the following Class II injection well:

TAR SANDS FEDERAL #7-33-8-17
1943 FNL & 2009 FEL
SWNE S33, T8S, R17E
Duchesne County, UT

BACKGROUND

The well is proposed for injection of fluid (water or brine) produced during conventional oil or natural gas production, and it may be commingled with waste water from gas plants which are an integral part of production operations unless that water is classified as a hazardous waste at the time of injection.

A Draft Permit has been prepared in accordance with provisions of the Safe Drinking Water Act (SDWA) as amended (42 USC et seq) and other lawful standards and regulations. The EPA has made a preliminary determination that all underground sources of drinking water will be protected. The Permit will be issued for the life of the well unless modified or terminated.

This Permit, once issued, will authorize the conversion of a non-injection well to an injection well and its operation as an injection well. Operation of the well will be governed by the requirements and conditions specified in the Permit.

PUBLIC COMMENTS

The requirements and conditions of the Draft Permit are tentative, and are open to comment from any interested party. Persons wishing to comment upon or object to any aspect of proposed Permit decision are invited to submit comments, IN WRITING, within 30 days of this notice to:

Emmett Schmitz
U. S. Environmental Protection Agency
Ground Water Program, 8P-W-GW
999 18th Street, Suite 300
Denver, Colorado 80202-2466
Telephone: 1-800-227-8917 ext. 6174

The Administrative Record, including the application, the Draft Permit and Statement of Basis prepared by the EPA, and public comments received, is available for public inspection at the above location(s) weekdays from 8:00 a.m. to 4:00 p.m.

PUBLIC HEARING

Within the thirty (30) day period, any interested person may request a public hearing as provided by 40 CFR §124.12. A request for a hearing must be made IN WRITING to the above address and must state the nature of the issues proposed to be raised at the hearing. A public hearing will be held only if significant interest is shown.

FINAL PERMIT DECISION

All comments received within the thirty (30) day period will be considered in the Final Permit decision. The decision may be to: issue, modify, deny, or revoke and reissue the Permit. The Final Permit decision shall become effective thirty (30) days after issuance unless no commenters requested changes to the Draft Permit, in which case the Permit shall become effective immediately upon issuance.

APPEALS

Within thirty (30) days after a Final Permit decision has been issued, any person who filed comments on the Draft Permit or who participated in a public hearing may petition the Administrator to review the final decision. Any person who failed to file comments or failed to participate in the public hearing may petition for administrative review only to the extent of the changes from the Draft to the Final Permit decision. Commenters are referred to 40 CFR §§ 124.15 through 124.20 for procedural requirements of the appeal process.

JUN - 9 2004

Date of Publication



**UNDERGROUND INJECTION CONTROL PROGRAM
PERMIT**

PREPARED: April 2004

Permit No. UT20952-04516

Class II Enhanced Oil Recovery Injection Well

**TAR SANDS FEDERAL #7-33-8-17
Duchesne County, UT**

DRAFT

Issued To

Inland Production Company

1401 Seventeenth Street

Suite 1000

Denver, CO 80202

Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit,

Inland Production Company
1401 Seventeenth Street
Suite 1000
Denver, CO 80202

is authorized to construct and to operate the following Class II injection well or wells:

TAR SANDS FEDERAL #7-33-8-17
1943 FNL & 2009 FEL, SWNE S33, T8S, R17E
Duchesne County, UT

Permit requirements herein are based on regulations found in 40 CFR Parts 124, 144, 146, and 147 which are in effect on the Effective Date of this Permit.

This Permit is based on representations made by the applicant and on other information contained in the Administrative Record. Misrepresentation of information or failure to fully disclose all relevant information may be cause for termination, revocation and reissuance, or modification of this Permit and/or formal enforcement action. This Permit will be reviewed periodically to determine whether action under 40 CFR 144.36(a) is required.

This Permit is issued for the life of the well unless modified, revoked and reissued, or terminated under 40 CFR 144.39 or 144.40. This Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for this program is delegated to an Indian Tribe or a State. Upon the effective date of delegation, all reports, notifications, questions and other compliance actions shall be directed to the Indian tribe or State Program Director or designee.

Issue Date: **DRAFT**

Effective Date **DRAFT**

Stephen S. Tuber
Assistant Regional Administrator*
Office of Partnerships and Regulatory Assistance

*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

PART II. SPECIFIC PERMIT CONDITIONS

Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

1. Casing and Cement.

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

2. Injection Tubing and Packer.

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

3. Sampling and Monitoring Devices.

The Permittee shall install and maintain in good operating condition:

- (a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and
- (b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:
 - (i) on the injection tubing; and
 - (ii) on the tubing-casing annulus (TCA); and
- (c) a pressure actuated shut-off device attached to the injection flow line set to shut-off the injection pump when or before the Maximum Allowable Injection Pressure specified in APPENDIX C is reached at the wellhead; and
- (d) a non-resettable cumulative volume recorder attached to the injection line.

4. Well Logging and Testing

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

5. Postponement of Construction or Conversion

The Permittee shall complete well construction within one year of the Effective Date of this Permit. Authorization to construct and operate shall expire and the Permit may be terminated under 40 CFR 144.40 if the well has not been constructed within one year of the Effective Date of the Permit unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate can be reissued.

6. Workovers and Alterations

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to the injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

Section B. MECHANICAL INTEGRITY

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

- (a) There is no significant leak in the casing, tubing, or packer (Part I); and
- (b) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well-bore (Part II).

1. Demonstration of Mechanical Integrity (MI).

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

2. Mechanical Integrity Test Methods and Criteria

EPA-approved methods shall be used to demonstrate mechanical integrity. A current copy of Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are provided at issuance of this Permit.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

3. Notification Prior to Testing.

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

4. Loss of Mechanical Integrity.

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit), and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

Section C. WELL OPERATION

INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.

Injection is approved under the following conditions:

1. Requirements Prior to Commencing Injection.

Injection operation may commence only after all construction and pre-injection requirements herein have been met and approved. Except for new wells authorized by an Area Permit under 40 CFR 144.33 (c), the Permittee may not commence injection until construction is complete, and,

- (a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and
 - (i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or
 - (ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

2. Injection Interval.

Injection is permitted only within the approved injection interval listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

3. Injection Pressure Limitation.

- (a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injected or formation fluids into a USDW.
- (b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permittee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

4. Injection Volume Limitation.

Injection volume is limited to the total volume specified in APPENDIX C.

5. Injection Fluid Limitation.

Injected fluids are limited to those identified in 40 CFR 144.6(b)(2) as fluids used for enhanced recovery of oil or natural gas, including those which are brought to the surface in connection with conventional oil or natural gas production that may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved for injection. This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The Permittee shall provide a listing of the sources of injected fluids in accordance with the reporting requirements in Part II Section D Paragraph 4 and APPENDIX D of this Permit.

6. Tubing-Casing Annulus (TCA)

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS

1. Monitoring Parameters, Frequency, Records and Reports.

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

- (a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;
- (b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;
- (c) the analytical techniques or methods used for analysis.

2. Monitoring Methods.

- (a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

- (b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.
- (c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.
- (d) Pressures are to be measured in pounds per square inch (psi).
- (e) Fluid volumes are to be measured in standard oil field barrels (bbl).
- (f) Fluid rates are to be measured in barrels per day (bbl/day).

3. Records Retention.

- (a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.
- (b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.
- (c) The Permittee shall retain records at the location designated in APPENDIX D.

4. Annual Reports.

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

Section E. PLUGGING AND ABANDONMENT

1. Notification of Well Abandonment, Conversion or Closure.

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning the well, 2) converting to a non-injection well, or 3) in the case of an Area Permit, before closure of the project.

2. Well Plugging Requirements

Prior to abandonment, the injection well shall be plugged with cement in a manner which prevents the movement of fluids into or between underground sources of drinking water. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director. The well shall be plugged in accordance with the approved plugging and abandonment plan and with 40 CFR 146.10.

3. Approved Plugging and Abandonment Plan.

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

4. Forty Five (45) Day Notice of Plugging and Abandonment.

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning the well and provide notice of any anticipated change to the approved plugging and abandonment plan.

5. Plugging and Abandonment Report.

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

- (a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or
- (b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

6. Inactive Wells.

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

- (a) Provides written notice to the Director;
- (b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and

- (c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

PART III. CONDITIONS APPLICABLE TO ALL PERMITS

Section A. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

Section B. CHANGES TO PERMIT CONDITIONS

1. Modification, Reissuance, or Termination.

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

2. Conversions.

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

3. Transfer of Permit.

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

4. Permittee Change of Address.

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

5. Construction Changes, Workovers, Logging and Testing Data

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging, or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

Section C. SEVERABILITY

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

Section D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

Section E. GENERAL PERMIT REQUIREMENTS

1. Duty to Comply.

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

2. Duty to Reapply.

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

3. Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

4. Duty to Mitigate.

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

5. Proper Operation and Maintenance.

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

6. Permit Actions.

This Permit may be modified, revoked and reissued or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

7. Property Rights.

This Permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information.

The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

9. Inspection and Entry.

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

10. Signatory Requirements.

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

11. Reporting Requirements.

- (a) **Planned changes.** The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.
- (b) **Anticipated noncompliance.** The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Monitoring Reports.** Monitoring results shall be reported at the intervals specified in this Permit.
- (d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.
- (e) **Twenty-four hour reporting.** The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:
 - (i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or
 - (ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- (f) Oil Spill and Chemical Release Reporting: The Permittee shall comply with all reporting requirements related to the occurrence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website <http://www.nrc.uscg.mil/index.htm>.
- (g) Other Noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.
- (h) Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director.

Section F. FINANCIAL RESPONSIBILITY

1. Method of Providing Financial Responsibility.

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

2. Insolvency.

In the event of:

- (a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or
- (b) suspension or revocation of the authority of the trustee institution to act as trustee; or

- (c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

APPENDIX A

WELL CONSTRUCTION REQUIREMENTS

SEE SCHEMATIC DIAGRAM:

- 8-5/8 inch casing is set at 289 feet (Ground Level) in a 12-1/4 inch hole, using 120 sacks of Premium cement circulated to the surface. The underground sources of drinking water are at the surface. Annulus cement and depth of surface casing are adequate to protect USDWs in this facility.
- 5-1/2 inch casing is set at 5876 feet kelly bushing (KB) in a 7-7/8 inch hole with 295 sacks of Hibond and 225 sacks of Thixotropic cement.
- The operator does not identify the top of annulus cement.
- The EPA analysis of the CBL/GR shows the top interval of 80% bond index cement bond as 5092 feet to 5110 feet (18 feet), which interval is within the Douglas Creek Member. There are two (2) other 80% cement bond index annulus cement intervals greater than eighteen (18) feet thick. These are 5140 feet to 5180 feet, and 5728 to CBL TD at 5815 feet.

Tar Sands Federal #7-33

Spud Date: 4/28/97
Put on Production: 11/22/97
GL: 5113' KB: 5126'

Initial Production: 101 BOPD;
90 MCFD; 0 BWPD

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55 *USDW @ Surface*
WEIGHT: 24#
LENGTH: 7 jts. (290.48')
DEPTH LANDED: 288.56' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cement, est 8 bbls to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 137 jts. (5878')
HOLE SIZE: 7-7/8"
CEMENT DATA: 295 sxs Hibond mixed & 255 sxs thixotropic
CEMENT TOP AT:
SET AT: 5876'

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 136 jts
PACKER: 4350'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: 4352'
SN LANDED AT: 4347'

Proposed Injection Wellbore Diagram

FRAC JOB

11/15/97 5705'-5776' Frac CP sand as follows:
95,300# 20/40 sand in 513 bbls of
Delta frac. Breakdown @ 2516 psi, treated
@ avg rate 28.1 bpm w/avg press of 1550
psi. ISIP-1791 psi, 5-min 1665 psi. Start
flowback on 12/64" ck for 3-1/2 hrs and
died.

11/18/97 5100'-5187' Frac B sand as follows:
115,300# of 20/40 sand in 555 bbls of
Delta frac. Breakdown @ 2340 psi.
Treated @ avg rate 26 bpm w/avg press
of 1730 psi. ISIP-2156 psi, 5-min 2027 psi.
Start flowback on 12/64" ck for 4 hrs &
died.

11/20/97 4406'-4419' Frac GB sand as follows:
88,300# of 20/40 sand in 457 bbls of
Delta frac. Breakdown @ 3024 psi.
Treated @ avg rate 24.1 bpm w/avg press
of 1800 psi. ISIP-2205 psi, 5-min 2137 psi.
Start flowback on 12/64" ck for 3 hrs &
died.

Cement top

+289'

+1597' Green River

*-3785'-3846' Confining Zone
-3846' Garden Gulch*

Packer @ 4350'

TOC EPA 5092'-5110'

Douglas Creek

4824'

PERFORATION RECORD

Date	Interval	Tool	Holes
11/14/97	5705'-5708'	4 JSPF	12 holes
11/14/97	5711'-5719'	4 JSPF	32 holes
11/14/97	5766'-5770'	4 JSPF	16 holes
11/14/97	5772'-5776'	4 JSPF	16 holes
11/16/97	5100'-5107'	4 JSPF	28 holes
11/16/97	5181'-5187'	4 JSPF	24 holes
11/19/97	4406'-4419'	4 JSPF	52 holes

SN @ 4347'
BOT @ 4352'
PBTD @ 5835'
TD @ 5900'

*Est. Base Carbonate @ 6070'
Est. Top W252ch @ 6200'*



Inland Resources Inc.

Tar Sands Federal #7-33

1943 FNL 2009 FEL

SWNE Section 33-T8S-R17E

Duchesne Co, Utah

API #43-013-31860; Lease #UTU-77234

APPENDIX B

LOGGING AND TESTING REQUIREMENTS

Logs.

Logs will be conducted according to current UIC guidance. It is the responsibility of the permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

NO LOGGING REQUIREMENTS

Tests.

Tests will be conducted according to current UIC guidance. It is the responsibility of the permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

NO TESTING REQUIREMENTS

APPENDIX C

OPERATING REQUIREMENTS

MAXIMUM ALLOWABLE INJECTION PRESSURE:

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

WELL NAME	MAXIMUM ALLOWED INJECTION PRESSURE (psi)
	ZONE 1 (Upper)
TAR SANDS FEDERAL #7-33-8-17	1,360

INJECTION INTERVAL(S):

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

WELL NAME: TAR SANDS FEDERAL #7-33-8-17			
FORMATION NAME	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT (psi/ft)
	TOP	BOTTOM	
Green River Formation: Garden Gulch-Douglas Creek-Basal Carbonate Members	3,846.00 - 6,200.00		0.744

ANNULUS PRESSURE:

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

MAXIMUM INJECTION VOLUME:

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

APPENDIX D

MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

OBSERVE MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS	
OBSERVE AND RECORD	Injection pressure (psig)
	Annulus pressure(s) (psig)
	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)

ANNUALLY	
ANALYZE	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH

ANNUALLY	
REPORT	Each month's maximum and averaged injection pressures (psig)
	Each month's maximum and averaged annulus pressure(s) (psig)
	Each month's averaged injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

Records of all monitoring activities must be retained and made available for inspection at the following location:

**Inland Production Company
1401 Seventeenth Street - Suite 1000
Denver, CO 80202**

APPENDIX E

PLUGGING AND ABANDONMENT REQUIREMENTS

The Plugging and Abandonment (P&A) Plan (Application Attachment Q-2) submitted by the applicant has been reviewed and approved, but with a modification by the EPA of Plug No. 5. The P&A Plan, as modified, is consistent with EPA requirements to protect all USDWs. The permittee will place 9.2 ppg plugging gel or bentonite mud between all cement plugs.

PLUG NO. 1: Set a cement plug inside of the 5-1/2 inch casing from 6505 feet to 5826 feet.

PLUG NO. 2: Set a cement plug inside of the 5-1/2 inch casing from 5000 feet to 5237 feet.

PLUG NO. 3: Set a cement plug inside of the 5-1/2 inch casing from 4306 feet to 4469 feet.

PLUG NO. 4: Set a cement plug inside of the 5-1/2 inch casing from 2000 feet to 2200 feet.

PLUG NO. 5: Set a cement plug on the inside of the 5-1/2 inch casing from 238 feet to 338 feet.

PLUG NO. 6: Set a cement plug on the backside of the 5-1/2 inch casing from the surface to a depth of 338 feet.

PLUG NO. 7: Set a cement plug inside of the 5-1/2 inch casing from the surface to a depth of fifty (50) feet.

APPENDIX F

CORRECTIVE ACTION REQUIREMENTS

No corrective action required.

STATEMENT OF BASIS

**INLAND PRODUCTION COMPANY
TAR SANDS FEDERAL #7-33-8-17
DUCHESNE COUNTY, UT**

EPA PERMIT NO. UT20952-04516

CONTACT: Emmett Schmitz
U. S. Environmental Protection Agency
Ground Water Program, 8P-W-GW
999 18th Street, Suite 300
Denver, Colorado 80202-2466
Telephone: 1-800-227-8917 ext. 6174

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

UIC Permits specify the conditions and requirements for construction, operation, monitoring and reporting, and plugging of injection wells to prevent the movement of fluids into underground sources of drinking water (USDWs). Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

Upon the Effective Date when issued, the Permit authorizes the conversion and operation of a "new" injection well or wells governed by the conditions specified in the Permit. The Permit is issued for the operating life of the injection well unless terminated for reasonable cause under 40 CFR 144.39, 144.40 and 144.41. The Permit is subject to EPA review at least once every five (5) years to determine if action is required under 40 CFR 144.36(a).

PART I. General Information and Description of Facility

Inland Production Company
1401 Seventeenth Street
Suite 1000
Denver, CO 80202

on

August 19, 1999

submitted an application for an Underground Injection Control (UIC) Program Permit for the following injection well or wells:

TAR SANDS FEDERAL #7-33-8-17
1943 FNL & 2009 FEL, SWNE S33, T8S, R17E
Duchesne County, UT

Regulations specific to Uintah-Urley Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The Permit application, including the required information and data necessary to issue a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed by EPA and determined to be complete.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

TABLE 1.1		
WELL STATUS / DATE OF OPERATION		
EXISTING WELLS		
Well Name	Well Status	Date of Operation
TAR SANDS FEDERAL #7-33-8-17	Existing	12/7/2000

PART II. Permit Considerations (40 CFR 146.24)

Geologic Setting (TABLE 2.1)

TABLE 2.1
GEOLOGIC SETTING
TAR SANDS FEDERAL #7-33-8-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Green River Member; Garden Gulch-Douglas Creek- Basal Carbonate Members	3,846.00	6,200.00	13,727.00	Sand and Limestone

Proposed Injection Zone(s) (TABLE 2.2)

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by the confining zone which is free of known open faults or fractures within the Area of Review.

TABLE 2.2
INJECTION ZONES
TAR SANDS FEDERAL #7-33-8-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River Formation: Garden Gulch-Douglas Creek-Basal Carbonate Members	3,846.00	6,200.00	13,727.00	0.744		N/A

* C - Currently Exempted
E - Previously Exempted
P - Proposed Exemption
N/A - Not Applicable

Confining Zone(s) (TABLE 2.3)

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

TABLE 2.3
CONFINING ZONES
TAR SANDS FEDERAL #7-33-8-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River Formation	Shale	3,766.00	3,828.00

Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

TABLE 2.4
UNDERGROUND SOURCES OF DRINKING WATER (USDW)
TAR SANDS FEDERAL #7-33-8-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta Formation	Shale and Sandstone. USDW at surface.	0.00	10.00	< 10,000.00

PART III. Well Construction (40 CFR 146.22)

TABLE 3.1
WELL CONSTRUCTION REQUIREMENTS
TAR SANDS FEDERAL #7-33-8-17

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Longstring	7.88	5.50	0.00 - 5,876.00	5,092.00 - 5,110.00
Surface	12.25	8.63	0.00 - 285.00	0.00 - 285.00

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

Casing and Cementing (TABLE 3.1)

The construction plan for this well proposed for conversion to an injection well was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction and conversion details for this well are shown in TABLE 3.1.

Tubing and Packer

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

Tubing-Casing Annulus (TCA)

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

Monitoring Devices

The permittee will be required to install and maintain wellhead equipment allowing for monitoring pressures and providing access for sampling the injected fluid. This equipment includes: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) pressure gauges attached to the injection tubing and the TCA to monitor the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

TABLE 4.1
AOR AND CORRECTIVE ACTION

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Tar Sands Federal 10-33	Producer	No	5,950.00	4,352.00	No
Tar Sands Federal 2-33	Producer	No	5,950.00	5,628.00	No
Tar Sands Federal 6-33	Producer	No	5,902.00	3,782.00	No

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

Area Of Review

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence. For Area Permits, a fixed width of not less than one quarter (1/4) mile for the circumscribing area may be used.

Corrective Action Plan

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

TABLE 4.1 lists the wells in the AOR, and shows the well type, operating status, depth, top of casing cement and whether a CAP is required for this well.

PART V. Well Operation Requirements (40 CFR 146.23)

TABLE 5.1
INJECTION ZONE PRESSURES
TAR SANDS FEDERAL #7-33-8-17

Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Green River Formation: Garden Gulch-Douglas Creek-Basal Carbonate Members	4,406.00	0.744	1,360

Approved Injection Fluid

The approved injection fluid will be limited to a produced water mixture which meets requirements pursuant to 40 CFR § 144.6(b). The well also may be used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are not approved.

Injection Pressure Limitation

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit,

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

FP = formation fracture pressure (measured at surface)

fg = fracture gradient (from submitted data or tests)

sg = specific gravity (of injected fluid)

d = depth to top of injection zone (or top perforation)

Injection Volume Limitation

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

Mechanical Integrity (40 CFR 146.8)

An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packern (Part I); and

2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependant upon well-specific conditions as explained below:

PART VI. Monitoring, Recordkeeping and Reporting Requirements

Injection Well Monitoring Program

At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, injection flow rate and cumulative fluid volume, and the maximum and average value for each must be determined for each month. This information is required to be reported annually as part of the Annual Report to the Director.

PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)

Plugging and Abandonment Plan

Prior to abandonment, this well must be plugged with cement in a manner which will not allow the movement of fluids either into or between USDWs. The plugging and abandonment plan is described in Appendix E of the Permit.

PART VIII. Financial Responsibility (40 CFR 144.52)

Demonstration of Financial Responsibility

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

Surety Bond, received October 11, 2000
--

Evidence of continuing financial responsibility is required to be submitted to the Director annually.

UNDERGROUND INJECTION CONTROL PROGRAM

PUBLIC NOTICE AND OPPORTUNITY TO COMMENT

PROPOSED UNDERGROUND INJECTION CONTROL (UIC) PERMIT

Inland Production Company
1401 Seventeenth Street
Suite 1000
Denver, CO 80202

PURPOSE OF PUBLIC NOTICE

The purpose of this notice is to solicit public comment on a proposal by the Region 8 Ground Water Program office of the U.S. Environmental Protection Agency (EPA) to issue an Underground Injection Control (UIC) Permit that will authorize the underground injection of fluid via the following Class II injection well:

TAR SANDS FEDERAL #7-33-8-17
1943 FNL & 2009 FEL
SWNE S33, T8S, R17E
Duchesne County, UT

BACKGROUND

The well is proposed for injection of fluid (water or brine) produced during conventional oil or natural gas production, and it may be commingled with waste water from gas plants which are an integral part of production operations unless that water is classified as a hazardous waste at the time of injection.

A Draft Permit has been prepared in accordance with provisions of the Safe Drinking Water Act (SDWA) as amended (42 USC et seq) and other lawful standards and regulations. The EPA has made a preliminary determination that all underground sources of drinking water will be protected. The Permit will be issued for the life of the well unless modified or terminated.

This Permit, once issued, will authorize the conversion of a non-injection well to an injection well and its operation as an injection well. Operation of the well will be governed by the requirements and conditions specified in the Permit.

PUBLIC COMMENTS

The requirements and conditions of the Draft Permit are tentative, and are open to comment from any interested party. Persons wishing to comment upon or object to any aspect of proposed Permit decision are invited to submit comments, IN WRITING, within 30 days of this notice to:

Emmett Schmitz
U. S. Environmental Protection Agency
Ground Water Program, 8P-W-GW
999 18th Street, Suite 300
Denver, Colorado 80202-2466
Telephone: 1-800-227-8917 ext. 6174

The Administrative Record, including the application, the Draft Permit and Statement of Basis prepared by the EPA, and public comments received, is available for public inspection at the above location(s) weekdays from 8:00 a.m. to 4:00 p.m.

PUBLIC HEARING

Within the thirty (30) day period, any interested person may request a public hearing as provided by 40 CFR §124.12. A request for a hearing must be made IN WRITING to the above address and must state the nature of the issues proposed to be raised at the hearing. A public hearing will be held only if significant interest is shown.

FINAL PERMIT DECISION

All comments received within the thirty (30) day period will be considered in the Final Permit decision. The decision may be to: issue, modify, deny, or revoke and reissue the Permit. The Final Permit decision shall become effective thirty (30) days after issuance unless no commenters requested changes to the Draft Permit, in which case the Permit shall become effective immediately upon issuance.

APPEALS

Within thirty (30) days after a Final Permit decision has been issued, any person who filed comments on the Draft Permit or who participated in a public hearing may petition the Administrator to review the final decision. Any person who failed to file comments or failed to participate in the public hearing may petition for administrative review only to the extent of the changes from the Draft to the Final Permit decision. Commenters are referred to 40 CFR §§ 124.15 through 124.20 for procedural requirements of the appeal process.

Date of Publication



United States Environmental Protection Agency
Washington, DC 20460

Application To Transfer Permit

Name and Address of Existing Permittee

Name and Address of Surface Owner

Locate Well and Outline Unit on
Section Plat- 640 Acres.

N											
S											

W E

State

County

Permit Number

Surface Location Description

___ 1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface

Location ___ ft. from (N/S) ___ Line of quarter section
and ___ ft. from (E/W) ___ Line of quarter section.

Well Activity

Well Status

Type of Permit

___ Class I

___ Operating

___ Individual

___ Class II

___ Modification/Conversion

___ Area

___ Brine Disposal

___ Proposed

Number of Wells ___

___ Enhanced Recovery

___ Hydrocarbon Storage

___ Class III

___ Other

Lease Number

Well Number

Name(s) and Address(es) of New Owners(s)

Name and Address of New Operator

Attach to this application a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them.

The new permittee must show evidence of financial responsibility by the submission of a surety bond, or other adequate assurance, such as financial statements or other materials acceptable to the Director.

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title (Please type or print)

Signature

Date Signed

HYDROCARBON STORAGE, OR ENHANCED RECOVERY WELL

Approval Expires 6-30-78

NAME AND ADDRESS OF EXISTING PERMITTEE

NAME AND ADDRESS OF SURFACE OWNER

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface
Location ft. from (N/S) Line of quarter section
and ft. from (E/W) Line of quarter section

WELL ACTIVITY

TYPE OF PERMIT

- ☐ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage

- ☐ Individual
☐ Area

Estimated Fracture Pressure
of Injection Zone

Number of Wells

Anticipated Daily Injection Volume (Bbls)

Injection Interval

Average

Maximum

Feet

to Feet

Anticipated Daily Injection Pressure (PSI)

Depth to Bottom of Lowermost Freshwater Formation
(Feet)

Average

Maximum

Type of Injection Fluid (Check the appropriate block(s))

- ☐ Salt Water ☐ Brackish Water ☐ Fresh Water
☐ Liquid Hydrocarbon ☐ Other

Lease Name

Well Number

Name of Injection Zone

Date Drilling Began

Date Well Completed

Permeability of Injection Zone

Date Drilling Completed

Porosity of Injection Zone

CASING AND TUBING

CEMENT

HOLE

OD Size

Wt/Ft — Grade — New or Used

Depth

Seals

Class

Depth

Bit Diameter

INJECTION ZONE STIMULATION

WIRE LINE LOGS, LIST EACH TYPE

Interval Treated

Materials and Amount Used

Log Types

Logged Intervals

Complete Attachments A — E listed on the reverse.

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND OFFICIAL TITLE (Please type or print)

DATE SIGNED

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

NAME AND ADDRESS OF EXISTING PERMITTEE

NAME AND ADDRESS OF SURFACE OWNER

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

SURFACE LOCATION DESCRIPTION
 1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location _____ ft. from (N/S) _____ Line of quarter section

and _____ ft. from (E/W) _____ Line of quarter section

WELL ACTIVITY

TYPE OF PERMIT☐ Brine Disposal

☐ Enhanced Recovery

☐ Hydrocarbon Storage☐ Individual

☐ Area

Number of Wells _____

Lease Name

Well Number

INJECTION PRESSURE

TOTAL VOLUME INJECTED

**TUBING — CASING ANNULUS PRESSURE
(OPTIONAL MONITORING)**

MONTH

YEAR

AVERAGE PSIG

MAXIMUM PSIG

234

MACP

MINIMUM PSIG

MAXIMUM DISC

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED

WELL REWORK RECORD

NAME AND ADDRESS OF CONTRACTOR

PERMIT NUMBER

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

Surface
Location _____ ft. from (N/S) _____ Line of quarter section
and _____ ft. from (E/W) _____ Line of quarter section

Lease Name**Date Rework Completed**

Well Number

Acid or Fracture Treatment Record

To

Acid or Fracture Treatment Record

From

Logged Intervals

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

DATE SIGNED _____



PLUGGING RECORD

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CEMENTING COMPANY

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

N									
S									

W E

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 OF

1/4 OF

1/4 SECTION

TOWNSHIP

RANGE

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location _____ ft. from (N/S) _____ Line of quarter section

and _____ ft. from (E/W) _____ Line of quarter section

TYPE OF AUTHORIZATION

☐ Individual Permit☐ Area Permit☐ Rule

Number of Wells _____

Lessee Name

Describe in detail the manner in which the fluid was placed and the method used in introducing it into the hole

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT(LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE

WELL ACTIVITY

METHOD OF EMPLACEMENT OF CEMENT PLUGS

☐ CLASS I☐ CLASS II☐ Brine Disposal☐ Enhanced Recovery☐ Hydrocarbon Storage☐ CLASS III☐ The Balance Method☐ The Cume Saker Method☐ The Two-Plug Method☐ Other

CEMENTING TO PLUG AND ABANDON DATA:

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inches)							
Depth to Bottom of Tubing or Drill Pipe (ft.)							
Size of Cement To Be Used (each plug)							
Slurry Volume To Be Pumped (cu. ft.)							
Calculated Top of Plug (ft.)							
Measured Top of Plug (if tagged ft.)							
Slurry Wt. (Lb./Gal.)							
Type Cement or Other Material (Class III)							

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS

From	To	From	To

Signature of Cementer or Authorized Representative

Signature of EPA Representative

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(REF. 40 CFR 122.22)

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 300
DENVER, COLORADO 80202-2466

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 37
Demonstrating Part II (external) Mechanical Integrity
for a Class II injection well permit.

FROM: Tom Pike, Chief
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

During the review for a Class II injection well permit, consideration must be given to the mechanical integrity (MI) of the well. MI demonstrates that the well is in sound condition and that the well is constructed in a manner that prevents injected fluids from entering any formation other than the authorized injection formation.

A demonstration of MI is a two part process:

PART I - INTERNAL MECHANICAL INTEGRITY is an assurance that there are no significant leaks in the casing/tubing/packer system.

PART II - EXTERNAL MECHANICAL INTEGRITY demonstrates that after fluid is injected into the formation, the injected fluids will not migrate out of the authorized injection interval through vertical channels adjacent to the wellbore.

A Class II injection well may demonstrate Part II MI by showing that injected fluids remain within the authorized injection interval. This may be accomplished as follows:

- 1) Cement bond log showing 80% bond through the an appropriate interval (Section Guidance 34),
- 2) Radioactive tracer survey conducted according to a EPA-approved procedure, or
- 3) Temperature survey conducted according to a EPA-approved procedure (Section Guidance 38).

For each test option above, the operator of the injection well should submit a plan for conducting the test. The plan will then be approved (or modified and approved) by EPA. EPA's pre-approval of the testing method will assure the operator that the



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test is conducted consistent with current EPA guidance, and that the test will provide meaningful results.

Part II MI may be demonstrated either before or after issuing the Final Permit. However, if Part II is to be demonstrated after the Final Permit is issued, a provision in the permit will require the demonstration of Part II MI. The well will also be required to pass Part II MI prior to granting authorization to inject.

Radioactive tracer surveys and temperature surveys require that the well be allowed to inject fluids as part of the procedure. In these cases, a well that has shown no other demonstration of Part II MI will be allowed to inject only that volume of fluid that is necessary to conduct the appropriate test.

After the results of the test proves that the well has passed Part II MI, the well will be given authorization to begin full injection operations.

If any of the tests show a lack of Part II MI, the well will be repaired and retested, or plugged (See Headquarters Guidance #76).



Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: ____/____/____

Test conducted by: _____

Others present: _____

Well Name: _____	Type: ER SWD	Status: AC TA UC
Field: _____		
Location: _____	Sec: _____ T _____ N/S R _____ E/W	County: _____ State: _____
Operator: _____		
Last MIT: ____/____/____	Maximum Allowable Pressure: _____	PSIG

Is this a regularly scheduled test? ☐ Yes ☐ No

Initial test for permit? ☐ Yes ☐ No

Test after well rework? ☐ Yes ☐ No

Well injecting during test? ☐ Yes ☐ No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: _____ psig

MITDATA TABLE		Test #1	Test #2	Test #3
TUBING		PRESSURE		
Initial Pressure	psig	psig	psig	
End of test pressure	psig	psig	psig	
CASING / TUBING		ANNULUS PRESSURE		
0 minutes	psig	psig	psig	
5 minutes	psig	psig	psig	
10 minutes	psig	psig	psig	
15 minutes	psig	psig	psig	
20 minutes	psig	psig	psig	
25 minutes	psig	psig	psig	
30 minutes	psig	psig	psig	
minutes	psig	psig	psig	
minutes	psig	psig	psig	
RESULT	[] Pass []Fail	[] Pass []Fail	[] Pass []Fail	

Does the annulus pressure build back up after the test? ☐ Yes ☐ No



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 39
Pressure testing injection wells for Part I (internal)
Mechanical Integrity

FROM: Tom Pike, Chief
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

Introduction

The Underground Injection Control (UIC) regulations require that an injection well have mechanical integrity at all times (40 CFR 144.28 (f)(2) and 40 CFR 144.51 (q)(1)). A well has mechanical integrity (40 CFR 146.8) if:

- (1) There is no significant leak in the tubing, casing or packer; and
- (2) There is no significant fluid movement into an underground source of drinking water (USDW) through vertical channels adjacent to the injection wellbore.

Definition: Mechanical Integrity Pressure Test for Part I. A pressure test used to determine the integrity of all the downhole components of an injection well, usually tubing, casing and packer. It is also used to test tubing cemented in the hole by using a tubing plug or retrievable packer. Pressure tests must be run at least once every five years. If for any reason the tubing/packer is pulled, the injection well is required to pass another mechanical integrity test of the tubing casing and packer prior to recommencing injection regardless of when the last test was conducted. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on either the attached form or an equivalent form containing the necessary information. A pressure recording chart documenting the actual annulus test pressures must be attached to the form.

This guidance addresses making a determination of Part I of Mechanical Integrity (no leaks in the tubing, casing or packer). The Region's policy is: 1) to determine if there are significant leaks in the tubing, casing or packer; 2) to assure that the casing can withstand pressure similar to that which



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would be applied if the tubing or packer fails; 3) to make the Region's test procedure consistent with the procedures utilized by other Region VIII Primacy programs; and 4) to provide a procedure which can be easily administered and is applicable to all class I and II wells. Although there are several methods allowed for determining mechanical integrity, the principal method involves running a pressure test of the tubing/casing annulus. Region VIII's procedure for running a pressure test is intended to aid UIC field inspectors who witness pressure tests for the purpose of demonstrating that a well has Part I of Mechanical Integrity. The guidance is also intended as a means of informing operators of the procedures required for conducting the test in the absence of an EPA inspector.

Pressure Test Description

Test Frequency

The mechanical integrity of an injection well must be maintained at all times. Mechanical integrity pressure tests are required at least every five (5) years. If for any reason the tubing/packer is pulled, however, the injection well is required to pass another mechanical integrity test prior to recommencing injection regardless of when the last test was conducted. The Regional UIC program must be notified of the workover and the proposed date of the pressure test. The well's test cycle would then start from the date of the new test if the well passes the test and documentation is adequate. Tests may be required on a more frequent basis depending on the nature of the injectate and the construction of the well (see Section guidance on MITs for wells with cemented tubing and regulations for Class I wells).

Region VIII's criteria for well testing frequency is as follows:

1. Class I hazardous waste injection wells; initially [40 CFR 146.68(d)(1)] and annually thereafter;
2. Class I non-hazardous waste injection wells; initially and every two (2) years thereafter, except for old permits (such as the disposal wells at carbon dioxide extraction plants which require a test at least every five years);
3. Class II wells with tubing, casing and packer; initially and at least every five (5) years thereafter;
4. Class II wells with tubing cemented in the hole; initially and every one (1) or two (2) years thereafter



depending on well specific conditions (See Region VIII UIC Section Guidance #36);

5. Class II wells which have been temporarily abandoned (TAd) must be pressure tested after being shut-in for two years; and
6. Class III uranium extraction wells; initially.

Test Pressure

To assure that the test pressure will detect significant leaks and that the casing is subjected to pressure similar to that which would be applied if the tubing or packer fails, the tubing/casing annulus should be tested at a pressure equal to the maximum allowed injection pressure or 1000 psig whichever is less. The annular test pressure must, however, have a difference of at least 200 psig either greater or less than the injection tubing pressure. Wells which inject at pressures of less than 300 psig must test at a minimum pressure of 300 psig, and the pressure difference between the annulus and the injection tubing must be at least 200 psi.

Test Criteria

1. The duration of the pressure test is 30 minutes.
2. Both the annulus and tubing pressures should be monitored and recorded every five (5) minutes.
3. If there is a pressure change of 10 percent or more from the initial test pressure during the 30 minute duration, the well has failed to demonstrate mechanical integrity and should be shut-in until it is repaired or plugged.
4. A pressure change of 10 percent or more is considered significant. If there is no significant pressure change in 30 minutes from the time that the pressure source is disconnected from the annulus, the test may be completed as passed.

Recordkeeping and Reporting

The test results must be recorded on the attached form. The annulus pressure should be recorded at five (5) minute intervals. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on the attached form or an equivalent form and a pressure recording



chart documenting the actual annulus test pressures must be attached to the submittal. The tubing pressure at the beginning and end of each test must be recorded. The volume of the annulus fluid bled back at the surface after the test should be measured and recorded on the form. This can be done by bleeding the annulus pressure off and discharging the associated fluid into a five gallon container. The volume information can be used to verify the approximate location of the packer.

Procedures for Pressure Test

1. Scheduling the test should be done at least two (2) weeks in advance.
2. Information on the well completion (location of the packer, location of perforations, previous cement work on the casing, size of casing and tubing, etc.) and the results of the previous MIT test should be reviewed by the field inspector in advance of the test. Regional UIC Guidance #35 should also be reviewed. Information relating to the previous MIT and any well workovers should be reviewed and taken into the field for verification purposes.
3. All Class I wells and Class II SWD wells should be shut-in prior to the test. A 12 to 24-hour shut-in is preferable to assure that the temperature of the fluid in the wellbore is stable.
4. Class II enhanced recovery wells may be operating during the test, but it is recommended that the well be shut-in if possible.
5. The operator should fill the casing/tubing annulus with inhibited fluid at least 24 hours in advance, if possible. Filling the annulus should be undertaken through one valve with the second valve open to allow air to escape. After the operator has filled the annulus, a check should be made to assure that the annulus will remain full. If the annulus can not maintain a full column of fluid, the operator should notify the Director and begin a rework. The operator should measure and report the volume of fluid added to the annulus. If not already the case, the casing/tubing valves should be closed, at least, 24 hours prior to the pressure test.

Following steps are at the well:

6. Read tubing pressure and record on the form. If the



well is shut-in, the reported information on the actual maximum operating pressure should be used to determine test pressures.

7. Read pressure on the casing/tubing annulus and record value on the form. If there is pressure on the annulus, it should be bled off prior to the test. If the pressure will not bleed-off, the guidance on well failures (Region VIII UIC Section Guidance #35) should be followed.
8. Ask the operator for the date of the last workover and the volume of fluid added to the annulus prior to this test and record information on the form.
9. Hook-up well to pressure source and apply pressure until test value is reached.
10. Immediately disconnect pressure source and start test time (If there has been a significant drop in pressure during the process of disconnection, the test may have to be restarted). The pressure gages used to monitor injection tubing pressure and annulus pressure should have a pressure range which will allow the test pressure to be near the mid-range of the gage. Additionally, the gage must be of sufficient accuracy and scale to allow an accurate reading of a 10 percent change to be read. For instance, a test pressure of 600 psi should be monitored with a 0 to 1000 psi gage. The scale should be incremented in 20 psi increments.
11. Record tubing and annulus pressure values every five (5) minutes.
12. At the end of the test, record the final tubing pressure.
13. If the test fails, check the valves, bull plugs and casing head close up for possible leaks. The well should be retested.
14. If the second test indicates a well failure, the Region should be informed of the failure within 24 hours by the operator, and the well should be shut-in within 48 hours per Headquarters guidance #76. A follow-up letter should be prepared by the operator which outlines the cause of the MIT failure and proposes a potential course of action. This report should be submitted to EPA within five days.



15. Bleed off well into a bucket, if possible, to obtain a volume estimate. This should be compared to the calculated value obtained using the casing/tubing annulus volume and fluid compressibility values.
16. Return to office and prepare follow-up.

Alternative Test Option

While it is expected that the test procedure outlined above will be applicable to most wells, the potential does exist that unique circumstances may exist for a given well that precludes or makes unsafe the application of this test procedure. In the event that these exceptional or extraordinary conditions are encountered, the operator has the option to propose an alternative test or monitoring procedures. The request must be submitted by the operator in writing and must be approved in writing by the UIC-Implementation Section Chief or equivalent level of management.

Attachment



Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: ____/____/____

Test conducted by: _____

Others present: _____

Well Name: _____	Type: ER SWD	Status: AC TA UC
Field: _____		
Location: _____	Sec: _____ T _____ N / S R _____ E / W	County: _____ State: _____
Operator: _____		
Last MIT: ____/____/____	Maximum Allowable Pressure: _____	PSIG

Is this a regularly scheduled test? ☐ Yes ☐ No

Initial test for permit? ☐ Yes ☐ No

Test after well rework? ☐ Yes ☐ No

Well injecting during test? ☐ Yes ☐ No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: _____ psig

MIT DATA TABLE		Test #1	Test #2	Test #3
TUBING PRESSURE				
Initial Pressure	psig	psig	psig	psig
End of test pressure	psig	psig	psig	psig
CASING / TUBING ANNULUS PRESSURE				
0 minutes	psig	psig	psig	psig
5 minutes	psig	psig	psig	psig
10 minutes	psig	psig	psig	psig
15 minutes	psig	psig	psig	psig
20 minutes	psig	psig	psig	psig
25 minutes	psig	psig	psig	psig
30 minutes	psig	psig	psig	psig
minutes	psig	psig	psig	psig
minutes	psig	psig	psig	psig
RESULT	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test? ☐ Yes ☐ No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

[illegible]

Signature of Witness: _____

OFFICE USE ONLY - COMPLIANCE FOLLOWUP

Staff _____ Date: ____/____/____

Do you agree with the reported test results? ☐ YES ☐ NO

If not, why? _____

Possible violation identified? ☐ YES ☐ NO

If YES, what

If YES - followup initiated? ☐ YES

☐ NO - why not? _____

☐ Data Entry

☐ Compliance Staff

[] 2nd Data Entry

[] Hardcopy Filing



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
<http://www.epa.gov/region08>

OPERATOR RESPONSIBILITIES FOLLOWING MIT FAILURES

- 1) **IMMEDIATELY - Cease injection and shut-in the well as rapidly as feasible. In no case shall the well remain in operation beyond 48 hours unless the Director (D. EDWIN HOGLE AT (303) 312-6137) allows for temporary operation of the well.**
- 2) **WITHIN 24 HOURS - Verbally notify the UIC Director of MIT failure even in cases where the failure is detected during a test which was witnessed by a UIC inspector.**
- 3) **WITHIN 5 DAYS - Submit a written follow-up report documenting test results, remediation taken or a proposed remediation plan and any limits established by the Director on appropriate volume or time for continued injection operation.**





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

RADIOACTIVE TRACER SURVEY

January 22, 1999

PURPOSE:

The purpose of this document is to provide a guideline for the acquisition of a radioactive tracer survey (RATS), a procedure that may be used to determine whether injected fluids may migrate vertically outside the casing after injection. This guidance may be used to develop a well-specific survey plan that accounts for specific well construction and operation considerations. Prior approval of planned RATS procedures by EPA is strongly recommended.

Radioactive Tracer Survey results must be documented with service company and other appropriate log records and/or charts, and the test should be witnessed by an EPA inspector. Arrangements may be made by contacting EPA Region 8 Underground Injection Control (UIC) offices using the EPA toll-free number 1-800-227-8917 (ask for extension 6155 or 6137).

RECORDING GUIDELINES

The logging must be done while the well is **injecting at normal injection pressure and rate**. The pressure and rate should be brought to equilibrium conditions prior to conducting the survey.

The survey tool must **include a collar locator** for depth control, an injector, and two detectors (one above and one below the injector).

Vertical **log scale** may be one inch, two inches, or five inches per 100 feet.

The Gamma Ray log may be run at up to 60 feet per minute (ft/min) at a time constant (TC) of one second, or up to 30 ft/min at a TC of 2 seconds, or up to 15 ft/min at a TC of 4 seconds. **The logging speed and time constant used must be indicated on the log heading.**

The **horizontal log scale** must be recorded in standard API Units (or in counts per second).

The **gamma ray (GR) sensitivity** must be set so that the tracer will be obvious when detected and will not be confused with normal "hot spots" in the logged formations (e.g., the gamma ray sensitivity set so that the lithology can be correlated by recording a "base log").

Record the beginning and ending clock times of each log pass.

Record the injection pressure and rate during each log pass.

Record the volume of fluid injected BETWEEN log passes.

Record the type, volume, and concentration of each tracer "slug" used.

Show the percentage of fluid loss across the perforated interval(s).



Printed on Recycled Paper

RECOMMENDED PROCEDURE:

With the GR sensitivity set for the lithologic correlation log as outlined above, run one "base log" from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone).

Commence operating the well at normal operating injection pressure and rate, and continue to do so until the pressure and rate become stabilized.

Set the tool so that the injector is positioned just below the tubing packer and inject a "slug" of tracer.

Reduce the GR sensitivity enough to keep the entire slug of the tracer radiation within the width of the chart paper (horizontal scale). To do this, a non-recorded pass through the slug may be run.

Drop tool to an appropriate depth below the slug and record Log Pass #1. Log to above the upper interface until the radiation level returns to the same level as below the slug. Drop tool to the appropriate depth below the slug and record Log Pass # 2 in the same manner as #1.

Repeat log passes process until the tracer slug strength dissipates to one tenth (1/10) of original strength (on Log Pass #1). At this point, reset (increase) the GR sensitivity to the same settings used for the base log, and log from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone).

Drop tool to an appropriate depth below the slug, reset (reduce) the GR sensitivity to that used for logging (same setting as Log Pass #1); and record a log pass up to the packer. Repeat this logging process until the tracer slug is gone or has completely stopped. Then reset (increase) the GR sensitivity back to the base log setting and make a final logging pass from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone). This final pass should show a close similarity to the pre-test base log response. NOTE: More than one pass may be shown on a log segment as long as each separate GR curve with its corresponding collar locator are distinguishable, otherwise record each pass on a separate log segment.

Drop and set the tool at the depth where the bottom detector is just above the uppermost perforation and inject a slug of tracer (the tool remains stationary for this logging record). As the slug moves past the bottom detector, the log trace should show an increase in the GR response. Hold the tool at this depth while pumping at the equilibrium pressure and rate.

SUBMITTING THE RESULTS:

An interpretation of the logging results must be supplied when submitting the data for EPA approval. The interpretation must include a fluid loss profile across the perforations, in increments of at least 25%

Include a schematic diagram of the well construction on or with the log. The diagram should show the casing diameters and depths, tubing diameter and depth, perforated interval, any open hole intervals, tot depth or plugged back total depth, and the location of the tool when the slug was injected. Also, indicate with arrows the pathway(s) the tracer slug appears to have gone.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

TEMPERATURE LOGGING FOR MECHANICAL INTEGRITY

January 12, 1999

PURPOSE:

The purpose of this document is to provide a guideline for the acquisition of temperature surveys, a procedure that may be used to determine the internal mechanical integrity of tubing and casing in an injection well. A temperature survey may be used to verify confinement of injected fluids within the injection formation.

LOGGING PROCEDURE

Run the temperature survey while going into the hole, with the temperature sensor located as close to the bottom of the tool as possible. The tool need not be centralized.

Record temperatures a 1-5 °F per inch, on a 5 inches per 100 feet log scale.

Logging speed should be within 20 - 30 feet per minute.

Run the log from ground level to total depth (or plug-back depth) of the well.

When using digital logging equipment, use the highest digital sampling rate as possible. Filtering should be kept to a minimum so that small scale results are obtained and preserved.

Record the first log trace while injecting at up to the maximum allowed injection pressure. Subsequent to the temperature survey, the maximum injection pressure will be limited to the pressure used during the survey.

LOG TRACES

Log the first log trace while the well is actively injecting, and record traces for gamma ray, temperature, and differential temperature.

Shut-in (not injecting) temperature curves should be recorded at intervals depending on the length of time that the injection well has been active. Preferred time intervals are shown in the following table:

Active Injection	Record Curves at These Times (In Hours)				
1 month	1	3	6	12	
6 months	1	6	10-12	22-24	
1 year	1	10-12	22-24	45-48	
5 years	1	10-12	22-24	45-48	90-96
10 years or more	1	22-24	45-48	90-96	186-192



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Injection well		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU77234
2. NAME OF OPERATOR: Inland Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		7. UNIT or CA AGREEMENT NAME: BLACKJACK UNIT
4. LOCATION OF WELL: FOOTAGES AT SURFACE: 1943 FNL 2009 FEL		8. WELL NAME and NUMBER: TAR SANDS FED 7-33
5. PHONE NUMBER: 435.646.3721		9. API NUMBER: 4301331860
6. QTR/QTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SW/NE, 33, T8S, R17E		10. FIELD AND POOL, OR WILDCAT: Monument Butte
7. COUNTY: Duchesne		8. STATE: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
	TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON	
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 06/25/2004	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Step Rate Test	
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION		

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

A step rate test was conducted on the subject well on 6/25/04. Results from the test indicate that the fracture gradient is .772 psi/ft. Therefore, Inland is requesting that the maximum allowable injection pressure (MAIP) be changed to 1485 psi.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE) Mike Guinn TITLE Engineer
SIGNATURE  DATE June 29, 2004

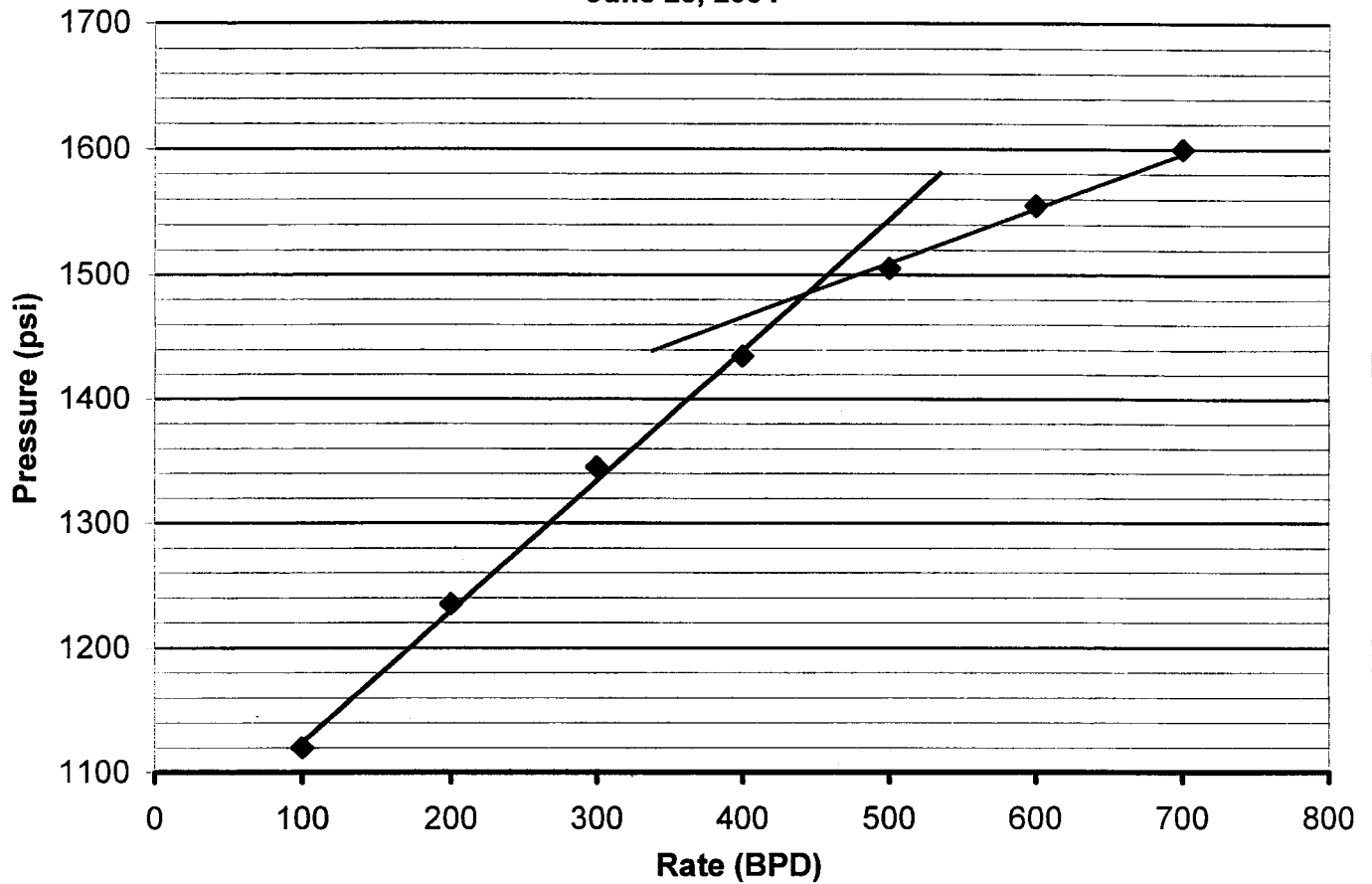
(This space for State use only)

RECEIVED

JUN 30 2004

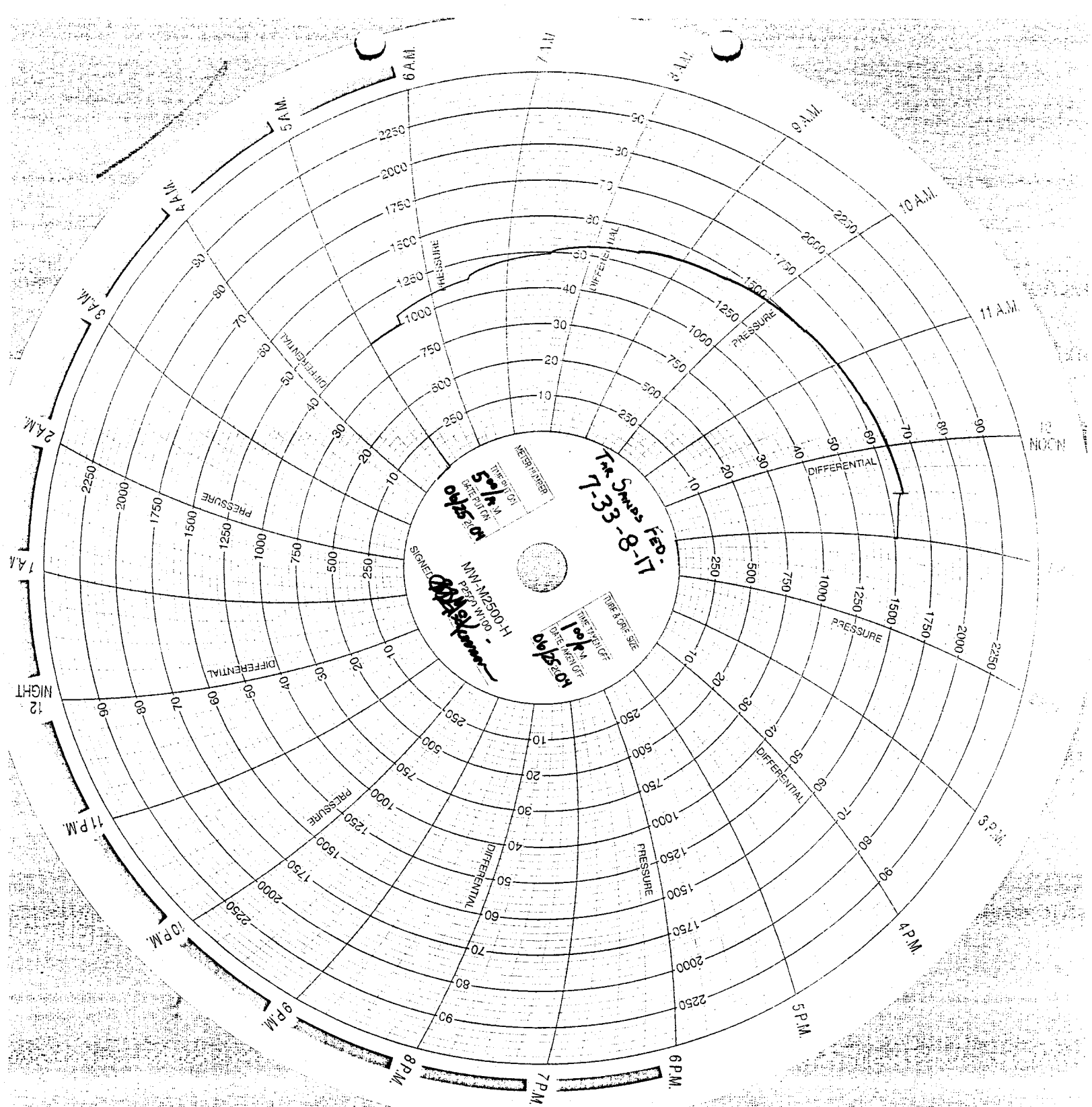
DIV. OF OIL, GAS & MINING

Tar Sands Federal 7-33-8-17
Black Jack Unit
Step Rate Test
June 25, 2004



Start Pressure: 1005 psi
Instantaneous Shut In Pressure (ISIP): 1580 psi
Top Perforation: 4406 feet
Fracture pressure (Pfp): 1485 psi
FG: 0.772 psi/ft

Step	Rate(bpd)	Pressure(psi)
1	100	1120
2	200	1235
3	300	1345
4	400	1435
5	500	1505
6	600	1555
7	700	1600





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

999 18th STREET - SUITE 300

DENVER, CO 80202-2466

<http://www.epa.gov/region08>

JUL 26 2004

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

Mr. David Gerbig
Inland Production Company
1401 Seventeenth Street - Suite 1000
Denver, CO 80202

Re: Underground Injection Control Program

Final Permit: UT20952-04516

Tar Sands Federal No. 7-33-8-17

Duchesne County, Utah

43-013-31860

RECEIVED
JUL 28 2004

Dear Mr. Gerbig

DIV. OF OIL, GAS & MINING

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Tar Sands Federal 7-33-8-17, in Duchesne County, Utah. A Statement of Basis, which discusses development of the conditions and requirements of the Permit, also is included.

The Public Comment period ended July 9, 2004. There were no comments on the Draft Permit received during the Public Notice period, and therefore the Final Permit becomes effective on the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect on the date that this Permit becomes effective.

Please note that under the terms of the Final Permit, you are authorized only to construct the proposed injection well, and must fulfill the "Prior to Commencing Injection" requirements of the Permit, Part II Section C Subpart 1 and obtain written Authorization to Inject prior to commencing injection. It is your responsibility to be familiar with and to comply with all provisions of the Final Permit.

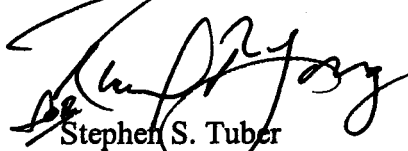
The Permit and the authorization to inject are issued for the operating life of the well unless terminated (Part III, Section B). The EPA will review this Permit at least every five (5) years to determine whether action under 40 CFR § 144.36(a) is warranted.



Printed on Recycled Paper

If you have any questions on the enclosed Final Permit or Statement of Basis, please call Emmett Schmitz of my staff at (303) 312-6174, or toll-free at 1.800.227.8917 (Ext. 6174).

Sincerely,



Stephen S. Tuber
Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

enclosure: Final Permit
 Final Statement of Basis
 EPA Form No. 7520-07: Application to Transfer Permit
 EPA Form No. 7520-10: Completion Report
 EPA Form No. 7520-11: Annual Monitoring Report
 EPA Form No. 7520-12: Well Rework Record
 EPA Form No. 7520-14: Plugging Record
 EPA Ground Water Section Guidance No. 37: Part II (External) MI
 EPA Ground Water Section Guidance No. 39: Part I (Internal) MI
 EPA Guidance for Conducting RATS
 EPA Guidance for Conducting Temperature Logging

cc: Maxine Natchees
 Chairperson
 Uintah & Ouray Business Committee
 Ute Indian Tribe

Elaine Willie
Environmental Director
Ute Indian Tribe

Chester Mills
Superintendent
Bureau of Indian Affairs
Uintah & Ouray Indian Agency

Michael Guinn
Vice President - Operations
Inland Production Company

Gil Hunt
Technical Services Manager
State of Utah - Natural Resources

Jerry Kenczka
Petroleum Engineer
Bureau of Land Management



**UNDERGROUND INJECTION CONTROL PROGRAM
PERMIT**

PREPARED: July 2004

Permit No. UT20952-04516

Class II Enhanced Oil Recovery Injection Well

**Tar Sands Federal 7-33-8-17
Duchesne County, UT**

Issued To

Inland Production Company

1401 Seventeenth Street

Suite 1000

Denver, CO 80202

Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit,

Inland Production Company
1401 Seventeenth Street
Suite 1000
Denver, CO 80202

is authorized to construct and to operate the following Class II injection well or wells:

Tar Sands Federal 7-33-8-17
1943 FNL & 2009 FEL, SWNE S33, T8S, R17E
Duchesne County, UT

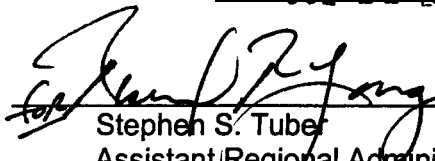
Permit requirements herein are based on regulations found in 40 CFR Parts 124, 144, 146, and 147 which are in effect on the Effective Date of this Permit.

This Permit is based on representations made by the applicant and on other information contained in the Administrative Record. Misrepresentation of information or failure to fully disclose all relevant information may be cause for termination, revocation and reissuance, or modification of this Permit and/or formal enforcement action. This Permit will be reviewed periodically to determine whether action under 40 CFR 144.36(a) is required.

This Permit is issued for the life of the well or wells unless modified, revoked and reissued, or terminated under 40 CFR 144.39 or 144.40. This Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for this program is delegated to an Indian Tribe or a State. Upon the effective date of delegation, all reports, notifications, questions and other compliance actions shall be directed to the Indian tribe or State Program Director or designee.

Issue Date: JUL 22 2004

Effective Date JUL 22 2004



Stephen S. Tuber
Assistant Regional Administrator*
Office of Partnerships and Regulatory Assistance

*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

PART II. SPECIFIC PERMIT CONDITIONS

Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

1. Casing and Cement.

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

2. Injection Tubing and Packer.

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

3. Sampling and Monitoring Devices.

The Permittee shall install and maintain in good operating condition:

- (a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and
- (b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:
 - (i) on the injection tubing; and
 - (ii) on the tubing-casing annulus (TCA); and
- (c) a pressure actuated shut-off device attached to the injection flow line set to shut-off the injection pump when or before the Maximum Allowable Injection Pressure specified in APPENDIX C is reached at the wellhead; and
- (d) a non-resettable cumulative volume recorder attached to the injection line.

4. Well Logging and Testing

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

5. Postponement of Construction or Conversion

The Permittee shall complete well construction within one year of the Effective Date of the Permit, or in the case of an Area Permit within one year of authorization of the additional well. Authorization to construct and operate shall expire if the well has not been constructed within one year of the Effective Date of the Permit or authorization and the Permit may be terminated under 40 CFR 144.40, unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate can be reissued.

6. Workovers and Alterations

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to an injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

Section B. MECHANICAL INTEGRITY

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

- (a) There is no significant leak in the casing, tubing, or packer (Part I); and
- (b) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore (Part II).

1. Demonstration of Mechanical Integrity (MI).

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

2. Mechanical Integrity Test Methods and Criteria

EPA-approved methods shall be used to demonstrate mechanical integrity. A current copy of Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are provided at issuance of this Permit.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

3. Notification Prior to Testing.

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

4. Loss of Mechanical Integrity.

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit), and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

Section C. WELL OPERATION

INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.

Injection is approved under the following conditions:

1. Requirements Prior to Commencing Injection.

Injection operation may commence only after all construction and pre-injection requirements herein have been met and approved. Except for new wells authorized by an Area Permit under 40 CFR 144.33 (c), the Permittee may not commence injection until construction is complete, and

- (a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and
 - (i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or
 - (ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

2. Injection Interval.

Injection is permitted only within the approved injection interval, listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

3. Injection Pressure Limitation

- (a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injected or formation fluids into a USDW.
- (b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permittee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

4. Injection Volume Limitation.

Injection volume is limited to the total volume specified in APPENDIX C.

5. Injection Fluid Limitation.

Injected fluids are limited to those identified in 40 CFR 144.6(b)(2) as fluids used for enhanced recovery of oil or natural gas, including those which are brought to the surface in connection with conventional oil or natural gas production that may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved for injection. This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The Permittee shall provide a listing of the sources of injected fluids in accordance with the reporting requirements in Part II Section D Paragraph 4 and APPENDIX D of this Permit.

6. Tubing-Casing Annulus (TCA)

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS

1. Monitoring Parameters, Frequency, Records and Reports.

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

- (a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;
- (b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;
- (c) the analytical techniques or methods used for analysis.

2. Monitoring Methods.

- (a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

- (b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.
- (c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.
- (d) Pressures are to be measured in pounds per square inch (psi).
- (e) Fluid volumes are to be measured in standard oil field barrels (bbl).
- (f) Fluid rates are to be measured in barrels per day (bbl/day).

3. Records Retention.

- (a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.
- (b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.
- (c) The Permittee shall retain records at the location designated in APPENDIX D.

4. Annual Reports.

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

Section E. PLUGGING AND ABANDONMENT

1. Notification of Well Abandonment, Conversion or Closure.

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning an injection well, 2) converting to a non-injection well, and 3) in the case of an Area Permit, before closure of the project.

2. Well Plugging Requirements

Prior to abandonment, the injection well shall be plugged with cement in a manner which prevents the movement of fluids into or between underground sources of drinking water. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director. The well shall be plugged in accordance with the approved plugging and abandonment plan and with 40 CFR 146.10.

3. Approved Plugging and Abandonment Plan.

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

4. Forty Five (45) Day Notice of Plugging and Abandonment.

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning a well and provide notice of any anticipated change to the approved plugging and abandonment plan.

5. Plugging and Abandonment Report.

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

- (a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or
- (b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

6. Inactive Wells.

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

- (a) Provides written notice to the Director;
- (b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and

- (c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

PART III. CONDITIONS APPLICABLE TO ALL PERMITS

Section A. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

Section B. CHANGES TO PERMIT CONDITIONS

1. Modification, Reissuance, or Termination.

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

2. Conversions.

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

3. Transfer of Permit.

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

4. Permittee Change of Address.

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

5. Construction Changes, Workovers, Logging and Testing Data

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging, or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

Section C. SEVERABILITY

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

Section D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

Section E. GENERAL PERMIT REQUIREMENTS

1. Duty to Comply.

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

2. Duty to Reapply.

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

3. Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

4. Duty to Mitigate.

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

5. Proper Operation and Maintenance.

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

6. Permit Actions.

This Permit may be modified, revoked and reissued or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

7. Property Rights.

This Permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information.

The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

9. Inspection and Entry.

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

10. Signatory Requirements.

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

11. Reporting Requirements.

- (a) **Planned changes.** The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.
- (b) **Anticipated noncompliance.** The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Monitoring Reports.** Monitoring results shall be reported at the intervals specified in this Permit.
- (d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.
- (e) **Twenty-four hour reporting.** The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:
 - (i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or
 - (ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- (f) Oil Spill and Chemical Release Reporting: The Permittee shall comply with all reporting requirements related to the occurrence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website <http://www.nrc.uscg.mil/index.htm>.
- (g) Other Noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.
- (h) Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director.

Section F. FINANCIAL RESPONSIBILITY

1. Method of Providing Financial Responsibility.

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

2. Insolvency.

In the event of:

- (a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or
- (b) suspension or revocation of the authority of the trustee institution to act as trustee; or

- (c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

APPENDIX A

WELL CONSTRUCTION REQUIREMENTS

- 8-5/8 inch casing is set at 289 feet (GL) in a 12-1/4 inch hole using 120 sacks of Premium cement circulated to the surface. The USDWs are at the surface. Annulus cement and depth of surface casing are adequate to protect USDWs in this facility.
- 5-1/2 inch casing is set at 5876 feet (KB) in a 7-7/8 inch hole with 295 sacks of Hibond and 225 sacks of Thixotropic cement.
- The operator does not identify the top of annulus cement.
- The EPA analysis of the CBL/GR shows the top of the interval of 80% bond index cement bond as 5092 feet to 5110 feet, which interval is within the Douglas Creek Member. There are two (2) other 80% bond index cement index annulus cement intervals greater than eighteen (18) feet thick. These are 5140 feet to 5180 feet and 5728 feet to CBL TD at 5815 feet.

Tar Sands Federal #7-33

Spud Date: 4/28/97
Put on Production: 11/22/97
GL: 5113' KB: 5126'

SURFACE CASING

CSO SIZE: 8-5/8"
GRADE: J-55 *USDW @ Surface*
WEIGHT: 24#
LENGTH: 7 ju. (290.48')
DEPTH LANDED: 288.56' OL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sac Premium cement, not 8 bbls to surf.

PRODUCTION CASING

CSO SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 137 ju. (5878')
HOLE SIZE: 7-7/8"
CEMENT DATA: 295 sac Hibond mixed & 255 sac thixotropic
CEMENT TOP AT:
SET AT: 5876'

TUBING

SIZE/GRADE/WT.: 2-7/8" / 14-50 / 6.50
NO. OF JOINTS: 136 ju
PACKER: 4350'
SEATING NIPPLE: 2-7/8"
TOTAL STRING LENGTH: 4352'
BN LANDED AT: 4347'

Proposed Injection Wellbore Diagram

FRAC JOB

11/15/97 5705'-5776' Frac CP sand as follows:
95,300# 20/40 sand in 513 bbls of
Delta frac. Breakdown @ 2516 psi, treated
@ avg rate 28.1 bpm w/avg press of 1550
psi. ISIP-1791 psi, 5-min 1665 psi. Start
flowback on 12/6/97 at 3-1/2 hrs and
died.
11/16/97 5100'-5187' Frac B sand as follows:
115,300# of 20/40 sand in 558 bbls of
Delta frac. Breakdown @ 2340 psi.
Treated @ avg rate 26 bpm w/avg press
of 1730 psi. ISIP-2156 psi, 5-min 2027 psi.
Start flowback on 12/6/97 at 4 hrs &
died.
11/20/97 4406'-4419' Frac C2B sand as follows:
88,300# of 20/40 sand in 457 bbls of
Delta frac. Breakdown @ 3034 psi.
Treated @ avg rate 24.1 bpm w/avg press
of 1800 psi. ISIP-2205 psi, 5-min 2137 psi.
Start flowback on 12/6/97 at 3 hrs &
died.

234'
1597' Green River
-3785'-3846' Confining Zone
-3846' Garden Gulch

Packer @ 4350'

TOC EPA 5092'-5110'

PERFORATION RECORD

11/14/97	5705'-5708'	4 JSPP	12 holes
11/14/97	5711'-5719'	4 JSPP	32 holes
11/14/97	5766'-5770'	4 JSPP	16 holes
11/14/97	5772'-5776'	4 JSPP	16 holes
11/16/97	5100'-5107'	4 JSPP	28 holes
11/16/97	5181'-5187'	4 JSPP	24 holes
11/19/97	4406'-4419'	4 JSPP	52 holes

BN @ 4347'
BOT @ 4352'
PSTD @ 5815'
TD @ 5900'

Est. Base Carbonate @ 6070'
Est. Top W2 Sat @ 6200'



Inland Resources Inc.

Tar Sands Federal #7-33

1943 PNL 2009 FEL

SWNE Section 33-T8S-R17E

Duchenne Co, Utah

API #43-013-31860; Lease #UTU-77234

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APPENDIX B

LOGGING AND TESTING REQUIREMENTS

Logs.

Logs will be conducted according to current UIC guidance. It is the responsibility of the permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

There are no logging requirements.

NO LOGGING REQUIREMENTS

Tests.

Tests will be conducted according to current UIC guidance. It is the responsibility of the permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

There are no testing requirements.

NO TESTING REQUIREMENTS

APPENDIX C

OPERATING REQUIREMENTS

MAXIMUM ALLOWABLE INJECTION PRESSURE:

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

WELL NAME	MAXIMUM ALLOWED INJECTION PRESSURE (psi)
	ZONE 1 (Upper)
Tar Sands Federal 7-33-8-17	1,360

INJECTION INTERVAL(S):

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

WELL NAME: Tar Sands Federal 7-33-8-17			
FORMATION NAME	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT (psi/ft)
	TOP	BOTTOM	
Green River Formation: garden Gulch-Douglas Creek-Basal Carbonate Members	3,846.00 - 6,200.00		0.744

ANNULUS PRESSURE:

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

MAXIMUM INJECTION VOLUME:

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

APPENDIX D

MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

OBSERVE MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS	
OBSERVE AND RECORD	Injection pressure (psig)
	Annulus pressure(s) (psig)
	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)

ANNUALLY	
ANALYZE	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH

ANNUALLY	
REPORT	Each month's maximum and averaged injection pressures (psig)
	Each month's maximum and averaged annulus pressure(s) (psig)
	Each month's averaged injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

Records of all monitoring activities must be retained and made available for inspection at the following location:

Mr. David Gerbig
1401 Seventeenth Street - Suite 1000
Denver, CO 80202

APPENDIX E

PLUGGING AND ABANDONMENT REQUIREMENTS

The Plugging and Abandonment Plan (P&A) (Application Attachment Q-2) submitted by the applicant has been reviewed and approved, but with a modification by the EPA of PLUG NO. 5. The P&A Plan, as modified, is consistent with EPA requirements to protect all USDWs. The permittee will place 9.2 ppg plugging gel or bentonite mud between all cement plugs.

PLUG NO. 1: Set a cement plug inside the 5-1/2 inch casing from 6505 feet to 5826 feet.

PLUG NO. 2: Set a cement plug inside the 5-1/2 inch casing from 5000 feet to 5237 feet.

PLUG NO. 3: Set a cement plug inside the 5-1/2 inch casing from 4306 feet to 4469 feet.

PLUG NO. 4: Set a cement plug inside the 5-1/2 inch casing from 2000 feet to 2200 feet.

PLUG NO. 5: Set a cement plug inside the 5-1/2 inch casing from 238 feet to 338 feet.

PLUG NO. 6: Set a cement plug on the backside of the 5-1/2 inch casing from the surface to 338 feet.

PLUG NO. 7: Set a cement plug inside the 5-1/2 inch casing from the surface to a depth of fifty (50) feet.

APPENDIX F

CORRECTIVE ACTION REQUIREMENTS

No corrective action required.

STATEMENT OF BASIS

**INLAND PRODUCTION COMPANY
TAR SANDS FEDERAL 7-33-8-17
DUCHESNE COUNTY, UT**

EPA PERMIT NO. UT20952-04516

CONTACT: Emmett Schmitz
U. S. Environmental Protection Agency
Ground Water Program, 8P-W-GW
999 18th Street, Suite 300
Denver, Colorado 80202-2466
Telephone: 1-800-227-8917 ext. 6174

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

UIC Permits specify the conditions and requirements for construction, operation, monitoring and reporting, and plugging of injection wells to prevent the movement of fluids into underground sources of drinking water (USDWs). Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

Upon the Effective Date when issued, the Permit authorizes the conversion and operation of a "new" injection well or wells governed by the conditions specified in the Permit. The Permit is issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR 144.39, 144.40 and 144.41. The Permit is subject to EPA review at least once every five (5) years to determine if action is required under 40 CFR 144.36(a).

PART I. General Information and Description of Facility

Inland Production Company
1401 Seventeenth Street
Suite 1000
Denver, CO 80202

on

August 19, 1999

submitted an application for an Underground Injection Control (UIC) Program Permit for the following injection well or wells:

Tar Sands Federal 7-33-8-17
1943 FNL & 2009 FEL, SWNE S33, T8S, R17E
Duchesne County, UT

Regulations specific to Uintah-Ouray Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The Permit application, including the required information and data necessary to issue a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed by EPA and determined to be complete.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

TABLE 1.1		
WELL STATUS / DATE OF OPERATION		
EXISTING WELLS		
Well Name	Well Status	Date of Operation
Tar Sands Federal 7-33-8-17	Existing	12/7/2000

PART II. Permit Considerations (40 CFR 146.24)

Geologic Setting (TABLE 2.1)

TABLE 2.1
GEOLOGIC SETTING
Tar Sands Federal 7-33-8-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Green River	3,846.00	6,200.00	13,727.00	Fluvial and lacustrine sand, carbonate, and shale

Proposed Injection Zone(s) (TABLE 2.2)

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by the confining zone which is free of known open faults or fractures within the Area of Review.

TABLE 2.2
INJECTION ZONES
Tar Sands Federal 7-33-8-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River Formation: garden Gulch-Douglas Creek-Basal Carbonate Members	3,846.00	6,200.00	13,727.00	0.744		N/A

* C - Currently Exempted
E - Previously Exempted
P - Proposed Exemption
N/A - Not Applicable

Confining Zone(s) (TABLE 2.3)

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

TABLE 2.3
CONFINING ZONES
Tar Sands Federal 7-33-8-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River	Shale	3,766.00	3,846.00

Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS)

and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

TABLE 2.4
UNDERGROUND SOURCES OF DRINKING WATER (USDW)
Tar Sands Federal 7-33-8-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta	Shale & sandstone. USDW at surface	0.00	10.00	< 10,000.00

PART III. Well Construction (40 CFR 146.22)

TABLE 3.1
WELL CONSTRUCTION REQUIREMENTS
Tar Sands Federal 7-33-8-17

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Surface	1,225.00	8.63	0.00 - 289.00	0.00 - 285.00
Longstring	5.50	7.88	0.00 - 5,876.00	5,092.00 - 5,110.00

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

Casing and Cementing (TABLE 3.1)

The construction plan for the well or wells proposed for conversion to an injection well was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction and conversion details for the well or wells are shown in TABLE 3.1.

Tubing and Packer

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

Tubing-Casing Annulus (TCA)

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

Monitoring Devices

The permittee will be required to install and maintain wellhead equipment allowing for monitoring pressures and providing access for sampling the injected fluid. This equipment includes: 1) shut-

off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) pressure gauges attached to the injection tubing and the TCA to monitor the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

**TABLE 4.1
AOR AND CORRECTIVE ACTION**

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Tar Sands Federal 10-33	Producer	No	5,950.00	4,352.00	No
Tar Sands Federal 2-33	Producer	No	5,950.00	5,628.00	No
Tar Sands Federal 6-33	Producer	No	5,902.00	3,782.00	No

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

Area Of Review

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence. For Area Permits, a fixed width of not less than one quarter (1/4) mile for the circumscribing area may be used.

Corrective Action Plan

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

TABLE 4.1 lists the wells in the AOR, and shows the well type, operating status, depth, top of casing cement and whether a CAP is required for this well.

PART V. Well Operation Requirements (40 CFR 146.23)

TABLE 5.1
INJECTION ZONE PRESSURES
Tar Sands Federal 7-33-8-17

Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Green River Formation: garden Gulch-Douglas Creek-Basal Carbonate Members	4,406.00	0.744	1,360

Approved Injection Fluid

The approved injection fluid is limited to fluids which meet requirements pursuant to 40 CFR § 144.6(b). For disposal wells injecting water brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, the fluid may be comingled and the well used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are not approved.

Injection Pressure Limitation

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit,

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

FP = formation fracture pressure (measured at surface)

fg = fracture gradient (from submitted data or tests)

sg = specific gravity (of injected fluid)

d = depth to top of injection zone (or top perforation)

Injection Volume Limitation

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

Mechanical Integrity (40 CFR 146.8)

An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packer (Part I); and
2. there is no significant fluid movement into a USDW through vertical channels adjacent to

the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependant upon well-specific conditions as explained below:

PART VI. Monitoring, Recordkeeping and Reporting Requirements

Injection Well Monitoring Program

At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, injection flow rate and cumulative fluid volume, and the maximum and average value for each must be determined for each month. This information is required to be reported annually as part of the Annual Report to the Director.

PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)

Plugging and Abandonment Plan

Prior to abandonment, the well or wells must be plugged with cement in a manner which will not allow the movement of fluids either into or between USDWs. The plugging and abandonment plan is described in Appendix E of the Permit.

PART VIII. Financial Responsibility (40 CFR 144.52)

Demonstration of Financial Responsibility

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

Surety Bond, received October 11, 2000
--

Evidence of continuing financial responsibility is required to be submitted to the Director annually.



United States Environmental Protection Agency
Washington, DC 20460

Application To Transfer Permit

Name and Address of Existing Permittee

Name and Address of Surface Owner

Locate Well and Outline Unit on
Section Plat- 640 Acres.

N											
S											

W E

State

County

Permit Number

Surface Location Description

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface

Location ft. from (N/S) Line of quarter section
and ft. from (E/W) Line of quarter section.

Well Activity

Well Status

Type of Permit

Class I

Operating

Individual

Class II

Modification/Conversion

Area

Brine Disposal

Proposed

Number of Wells

Enhanced Recovery

Hydrocarbon Storage

Class III

Other

Lease Number

Well Number

Name(s) and Address(es) of New Owners(s)

Name and Address of New Operator

Attach to this application a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them.

The new permittee must show evidence of financial responsibility by the submission of a surety bond, or other adequate assurance, such as financial statements or other materials acceptable to the Director.

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

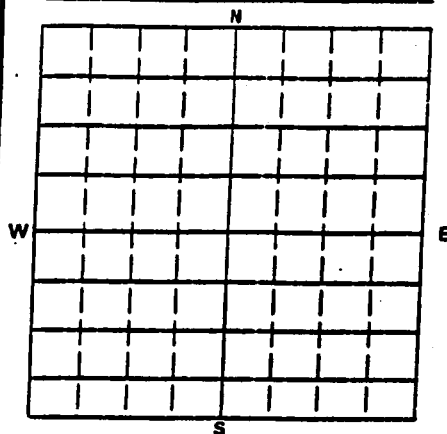
Name and Official Title (Please type or print)

Signature

Date Signed

NAME AND ADDRESS OF EXISTING PERMITTEE

NAME AND ADDRESS OF SURFACE OWNER

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location ft. from (N/S) Line of quarter section

and ft. from (E/W) Line of quarter section

WELL ACTIVITY

TYPE OF PERMIT

☐ Brine Disposal☐ Individual☐ Enhanced Recovery☐ Area☐ Hydrocarbon Storage

Number of Wells

Estimated Fracture Pressure
of Injection Zone

Anticipated Daily Injection Volume (Bbls)

Injection Interval

Average

Maximum

Feet

to Feet

Anticipated Daily Injection Pressure (PSI)

Depth to Bottom of Lowermost Freshwater Formation
(Feet)

Average

Maximum

Type of Injection Fluid (Check the appropriate block(s))

☐ Salt Water☐ Brackish Water☐ Fresh Water☐ Liquid Hydrocarbon☐ Other

Lease Name

Well Number

Name of Injection Zone

Date Drilling Began

Date Well Completed

Permeability of Injection Zone

Date Drilling Completed

Porosity of Injection Zone

CASING AND TUBING

OD Size	Wt/Ft — Grade — New or Used

CEMENT

HOLE

Depth	Sacks	Class	Depth	Bit Diameter

INJECTION ZONE STIMULATION

Interval Treated	Materials and Amount Used

WIRE LINE LOGS, LIST EACH TYPE

Log Types	Logged Intervals

Complete Attachments A — E listed on the reverse.

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND OFFICIAL TITLE (Please type or print)

DATE SIGNED

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

NAME AND ADDRESS OF SURFACE OWNER

PERMIT NUMBER

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

and _____ ft. from (E/W) _____ Line of quarter section

Well Number

[illegible]

DATE SIGNED

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460**WELL REWORK RECORD**

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CONTRACTOR

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

N									
S									

W E

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location ft. from (N/S) Line of quarter section

and ft. from (E/W) Line of quarter section

WELL ACTIVITY

- ☐ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage

Lease Name

Total Depth Before Rework

Total Depth After Rework

Date Rework Commenced

Date Rework Completed

TYPE OF PERMIT

- ☐ Individual
☐ Area
 Number of Wells

Well Number

WELL CASING RECORD — BEFORE REWORK

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	

WELL CASING RECORD — AFTER REWORK (Indicate Additions and Changes Only)

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Sacks	Type	From	To	

DESCRIBE REWORK OPERATIONS IN DETAIL
USE ADDITIONAL SHEETS IF NECESSARY**WIRE LINE LOGS, LIST EACH TYPE**

	Log Types		Logged Intervals

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED



PLUGGING RECORD

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CEMENTING COMPANY

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 OF

1/4 OF

1/4 SECTION

TOWNSHIP

RANGE

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location ____ ft. from (N/S) ____ Line of quarter section

and ____ ft. from (E/W) ____ Line of quarter section

TYPE OF AUTHORIZATION

☐ Individual Permit☐ Area Permit☐ Rule

Number of Wells ____

Describe in detail the manner in which the fluid was placed and
the method used in introducing it into the hole

Lease Name

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT(LB./FT.)	TO BE PUT IN WELL (FT.)	TO BE LEFT IN WELL (FT.)	HOLE SIZE

WELL ACTIVITY

METHOD OF EMPLACEMENT OF CEMENT PLUGS

☐ CLASS I☐ CLASS II☐ Brine Disposal☐ Enhanced Recovery☐ Hydrocarbon Storage☐ CLASS III☐ The Balance Method☐ The Dump Slinger Method☐ The Two-Plug Method☐ Other

CEMENTING TO PLUG AND ABANDON DATA:

PLUG #1

PLUG #2

PLUG #3

PLUG #4

PLUG #5

PLUG #6

PLUG #7

Size of Hole or Pipe in which Plug Will Be Placed (inches)

Depth to Bottom of Tubing or Drill Pipe (ft.)

Sacks of Cement To Be Used (each plug)

Slurry Volume To Be Pumped (cu. ft.)

Calculated Top of Plug (ft.)

Measured Top of Plug (if tagged ft.)

Slurry Wt. (lb./gal.)

Type Cement or Other Material (Class III)

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS

From

To

From

To

Signature of Cementer or Authorized Representative

Signature of EPA Representative

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(REF. 40 CFR 122.22)

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 300
DENVER, COLORADO 80202-2466

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 37
Demonstrating Part II (external) Mechanical Integrity
for a Class II injection well permit.

FROM: Tom Pike, Chief
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

During the review for a Class II injection well permit, consideration must be given to the mechanical integrity (MI) of the well. MI demonstrates that the well is in sound condition and that the well is constructed in a manner that prevents injected fluids from entering any formation other than the authorized injection formation.

A demonstration of MI is a two part process:

PART I - INTERNAL MECHANICAL INTEGRITY is an assurance that there are no significant leaks in the casing/tubing/packer system.

PART II - EXTERNAL MECHANICAL INTEGRITY demonstrates that after fluid is injected into the formation, the injected fluids will not migrate out of the authorized injection interval through vertical channels adjacent to the wellbore.

A Class II injection well may demonstrate Part II MI by showing that injected fluids remain within the authorized injection interval. This may be accomplished as follows:

- 1) Cement bond log showing 80% bond through the an appropriate interval (Section Guidance 34),
- 2) Radioactive tracer survey conducted according to a EPA-approved procedure, or
- 3) Temperature survey conducted according to a EPA-approved procedure (Section Guidance 38).

For each test option above, the operator of the injection well should submit a plan for conducting the test. The plan will then be approved (or modified and approved) by EPA. EPA's pre-approval of the testing method will assure the operator that the



test is conducted consistent with current EPA guidance, and that the test will provide meaningful results.

Part II MI may be demonstrated either before or after issuing the Final Permit. However, if Part II is to be demonstrated after the Final Permit is issued, a provision in the permit will require the demonstration of Part II MI. The well will also be required to pass Part II MI prior to granting authorization to inject.

Radioactive tracer surveys and temperature surveys require that the well be allowed to inject fluids as part of the procedure. In these cases, a well that has shown no other demonstration of Part II MI will be allowed to inject only that volume of fluid that is necessary to conduct the appropriate test.

After the results of the test proves that the well has passed Part II MI, the well will be given authorization to begin full injection operations.

If any of the tests show a lack of Part II MI, the well will be repaired and retested, or plugged (See Headquarters Guidance #76).



Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: ____/____/____

Test conducted by: _____

Others present: _____

Well Name: _____	Type: ER SWD	Status: AC TA UC
Field: _____		
Location: _____	Sec: _____ T _____ N/S R _____ E/W	County: _____ State: _____
Operator: _____		
Last MIT: ____/____/____	Maximum Allowable Pressure: _____	PSIG

Is this a regularly scheduled test? ☐ Yes ☐ No

Initial test for permit? ☐ Yes ☐ No

Test after well rework? ☐ Yes ☐ No

Well injecting during test? ☐ Yes ☐ No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: _____ psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	psig	psig	psig
End of test pressure	psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	psig	psig	psig
5 minutes	psig	psig	psig
10 minutes	psig	psig	psig
15 minutes	psig	psig	psig
20 minutes	psig	psig	psig
25 minutes	psig	psig	psig
30 minutes	psig	psig	psig
minutes	psig	psig	psig
minutes	psig	psig	psig
RESULT	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test? ☐ Yes ☐ No



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 39
Pressure testing injection wells for Part I (internal)
Mechanical Integrity

FROM: Tom Pike, Chief
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

Introduction

The Underground Injection Control (UIC) regulations require that an injection well have mechanical integrity at all times (40 CFR 144.28 (f)(2) and 40 CFR 144.51 (q)(1)). A well has mechanical integrity (40 CFR 146.8) if:

- (1) There is no significant leak in the tubing, casing or packer; and
- (2) There is no significant fluid movement into an underground source of drinking water (USDW) through vertical channels adjacent to the injection wellbore.

Definition: Mechanical Integrity Pressure Test for Part I. A pressure test used to determine the integrity of all the downhole components of an injection well, usually tubing, casing and packer. It is also used to test tubing cemented in the hole by using a tubing plug or retrievable packer. Pressure tests must be run at least once every five years. If for any reason the tubing/packer is pulled, the injection well is required to pass another mechanical integrity test of the tubing casing and packer prior to recommencing injection regardless of when the last test was conducted. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on either the attached form or an equivalent form containing the necessary information. A pressure recording chart documenting the actual annulus test pressures must be attached to the form.

This guidance addresses making a determination of Part I of Mechanical Integrity (no leaks in the tubing, casing or packer). The Region's policy is: 1) to determine if there are significant leaks in the tubing, casing or packer; 2) to assure that the casing can withstand pressure similar to that which



would be applied if the tubing or packer fails; 3) to make the Region's test procedure consistent with the procedures utilized by other Region VIII Primacy programs; and 4) to provide a procedure which can be easily administered and is applicable to all class I and II wells. Although there are several methods allowed for determining mechanical integrity, the principal method involves running a pressure test of the tubing/casing annulus. Region VIII's procedure for running a pressure test is intended to aid UIC field inspectors who witness pressure tests for the purpose of demonstrating that a well has Part I of Mechanical Integrity. The guidance is also intended as a means of informing operators of the procedures required for conducting the test in the absence of an EPA inspector.

Pressure Test Description

Test Frequency

The mechanical integrity of an injection well must be maintained at all times. Mechanical integrity pressure tests are required at least every five (5) years. If for any reason the tubing/packer is pulled, however, the injection well is required to pass another mechanical integrity test prior to recommencing injection regardless of when the last test was conducted. The Regional UIC program must be notified of the workover and the proposed date of the pressure test. The well's test cycle would then start from the date of the new test if the well passes the test and documentation is adequate. Tests may be required on a more frequent basis depending on the nature of the injectate and the construction of the well (see Section guidance on MITs for wells with cemented tubing and regulations for Class I wells).

Region VIII's criteria for well testing frequency is as follows:

1. Class I hazardous waste injection wells; initially [40 CFR 146.68(d)(1)] and annually thereafter;
2. Class I non-hazardous waste injection wells; initially and every two (2) years thereafter, except for old permits (such as the disposal wells at carbon dioxide extraction plants which require a test at least every five years);
3. Class II wells with tubing, casing and packer; initially and at least every five (5) years thereafter;
4. Class II wells with tubing cemented in the hole; initially and every one (1) or two (2) years thereafter



depending on well specific conditions (See Region VIII UIC Section Guidance #36);

5. Class II wells which have been temporarily abandoned (TAd) must be pressure tested after being shut-in for two years; and
6. Class III uranium extraction wells; initially.

Test Pressure

To assure that the test pressure will detect significant leaks and that the casing is subjected to pressure similar to that which would be applied if the tubing or packer fails, the tubing/casing annulus should be tested at a pressure equal to the maximum allowed injection pressure or 1000 psig whichever is less. The annular test pressure must, however, have a difference of at least 200 psig either greater or less than the injection tubing pressure. Wells which inject at pressures of less than 300 psig must test at a minimum pressure of 300 psig, and the pressure difference between the annulus and the injection tubing must be at least 200 psi.

Test Criteria

1. The duration of the pressure test is 30 minutes.
2. Both the annulus and tubing pressures should be monitored and recorded every five (5) minutes.
3. If there is a pressure change of 10 percent or more from the initial test pressure during the 30 minute duration, the well has failed to demonstrate mechanical integrity and should be shut-in until it is repaired or plugged.
4. A pressure change of 10 percent or more is considered significant. If there is no significant pressure change in 30 minutes from the time that the pressure source is disconnected from the annulus, the test may be completed as passed.

Recordkeeping and Reporting

The test results must be recorded on the attached form. The annulus pressure should be recorded at five (5) minute intervals. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on the attached form or an equivalent form and a pressure recording



chart documenting the actual annulus test pressures must be attached to the submittal. The tubing pressure at the beginning and end of each test must be recorded. The volume of the annulus fluid bled back at the surface after the test should be measured and recorded on the form. This can be done by bleeding the annulus pressure off and discharging the associated fluid into a five gallon container. The volume information can be used to verify the approximate location of the packer.

Procedures for Pressure Test

1. Scheduling the test should be done at least two (2) weeks in advance.
2. Information on the well completion (location of the packer, location of perforations, previous cement work on the casing, size of casing and tubing, etc.) and the results of the previous MIT test should be reviewed by the field inspector in advance of the test. Regional UIC Guidance #35 should also be reviewed. Information relating to the previous MIT and any well workovers should be reviewed and taken into the field for verification purposes.
3. All Class I wells and Class II SWD wells should be shut-in prior to the test. A 12 to 24-hour shut-in is preferable to assure that the temperature of the fluid in the wellbore is stable.
4. Class II enhanced recovery wells may be operating during the test, but it is recommended that the well be shut-in if possible.
5. The operator should fill the casing/tubing annulus with inhibited fluid at least 24 hours in advance, if possible. Filling the annulus should be undertaken through one valve with the second valve open to allow air to escape. After the operator has filled the annulus, a check should be made to assure that the annulus will remain full. If the annulus can not maintain a full column of fluid, the operator should notify the Director and begin a rework. The operator should measure and report the volume of fluid added to the annulus. If not already the case, the casing/tubing valves should be closed, at least, 24 hours prior to the pressure test.

Following steps are at the well:

6. Read tubing pressure and record on the form. If the



well is shut-in, the reported information on the actual maximum operating pressure should be used to determine test pressures.

7. Read pressure on the casing/tubing annulus and record value on the form. If there is pressure on the annulus, it should be bled off prior to the test. If the pressure will not bleed-off, the guidance on well failures (Region VIII UIC Section Guidance #35) should be followed.
8. Ask the operator for the date of the last workover and the volume of fluid added to the annulus prior to this test and record information on the form.
9. Hook-up well to pressure source and apply pressure until test value is reached.
10. Immediately disconnect pressure source and start test time (If there has been a significant drop in pressure during the process of disconnection, the test may have to be restarted). The pressure gages used to monitor injection tubing pressure and annulus pressure should have a pressure range which will allow the test pressure to be near the mid-range of the gage. Additionally, the gage must be of sufficient accuracy and scale to allow an accurate reading of a 10 percent change to be read. For instance, a test pressure of 600 psi should be monitored with a 0 to 1000 psi gage. The scale should be incremented in 20 psi increments.
11. Record tubing and annulus pressure values every five (5) minutes.
12. At the end of the test, record the final tubing pressure.
13. If the test fails, check the valves, bull plugs and casing head close up for possible leaks. The well should be retested.
14. If the second test indicates a well failure, the Region should be informed of the failure within 24 hours by the operator, and the well should be shut-in within 48 hours per Headquarters guidance #76. A follow-up letter should be prepared by the operator which outlines the cause of the MIT failure and proposes a potential course of action. This report should be submitted to EPA within five days.



15. Bleed off well into a bucket, if possible, to obtain a volume estimate. This should be compared to the calculated value obtained using the casing/tubing annulus volume and fluid compressibility values.
16. Return to office and prepare follow-up.

Alternative Test Option

While it is expected that the test procedure outlined above will be applicable to most wells, the potential does exist that unique circumstances may exist for a given well that precludes or makes unsafe the application of this test procedure. In the event that these exceptional or extraordinary conditions are encountered, the operator has the option to propose an alternative test or monitoring procedures. The request must be submitted by the operator in writing and must be approved in writing by the UIC-Implementation Section Chief or equivalent level of management.

Attachment





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

RADIOACTIVE TRACER SURVEY

January 22, 1999

PURPOSE:

The purpose of this document is to provide a guideline for the acquisition of a radioactive tracer survey (RATS), a procedure that may be used to determine whether injected fluids may migrate vertically outside the casing after injection. This guidance may be used to develop a well-specific survey plan that accounts for specific well construction and operation considerations. Prior approval of planned RATS procedures by EPA is strongly recommended.

Radioactive Tracer Survey results must be documented with service company and other appropriate log records and/or charts, and the test should be witnessed by an EPA inspector. Arrangements may be made by contacting EPA Region 8 Underground Injection Control (UIC) offices using the EPA toll-free number 1-800-227-8917 (ask for extension 6155 or 6137).

RECORDING GUIDELINES

The logging must be done while the well is **injecting at normal injection pressure and rate**. The pressure and rate should be brought to equilibrium conditions prior to conducting the survey.

The survey tool must **include a collar locator** for depth control, an injector, and two detectors (one above and one below the injector).

Vertical **log scale** may be one inch, two inches, or five inches per 100 feet.

The Gamma Ray log may be run at up to 60 feet per minute (ft/min) at a time constant (TC) of one second, or up to 30 ft/min at a TC of 2 seconds, or up to 15 ft/min at a TC of 4 seconds. **The logging speed and time constant used must be indicated on the log heading.**

The **horizontal log scale** must be recorded in standard API Units (or in counts per second).

The **gamma ray (GR) sensitivity** must be set so that the tracer will be obvious when detected and will not be confused with normal "hot spots" in the logged formations (e.g., the gamma ray sensitivity set so that the lithology can be correlated by recording a "base log").

Record the beginning and ending clock times of each log pass.

Record the injection pressure and rate during each log pass.

Record the volume of fluid injected BETWEEN log passes.

Record the type, volume, and concentration of each tracer "slug" used.

Show the percentage of fluid loss across the perforated interval(s).



Printed on Recycled Paper

RECOMMENDED PROCEDURE:

With the GR sensitivity set for the lithologic correlation log as outlined above, run one "base log" from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone).

Commence operating the well at normal operating injection pressure and rate, and continue to do so until the pressure and rate become stabilized.

Set the tool so that the injector is positioned just below the tubing packer and inject a "slug" of tracer.

Reduce the GR sensitivity enough to keep the entire slug of the tracer radiation within the width of the chart paper (horizontal scale). To do this, a non-recorded pass through the slug may be run.

Drop tool to an appropriate depth below the slug and record Log Pass #1. Log to above the upper interface until the radiation level returns to the same level as below the slug. Drop tool to the appropriate depth below the slug and record Log Pass # 2 in the same manner as #1.

Repeat log passes process until the tracer slug strength dissipates to one tenth (1/10) of original strength (on Log Pass #1). At this point, reset (increase) the GR sensitivity to the same settings used for the base log, and log from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone).

Drop tool to an appropriate depth below the slug, reset (reduce) the GR sensitivity to that used for logging (same setting as Log Pass #1), and record a log pass up to the packer. Repeat this logging process until the tracer slug is gone or has completely stopped. Then reset (increase) the GR sensitivity back to the base log setting and make a final logging pass from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone). This final pass should show a close similarity to the pre-test base log response. NOTE: More than one pass may be shown on a log segment as long as each separate GR curve with its corresponding collar locator are distinguishable, otherwise record each pass on a separate log segment.

Drop and set the tool at the depth where the bottom detector is just above the uppermost perforation and inject a slug of tracer (the tool remains stationary for this logging record). As the slug moves past the bottom detector, the log trace should show an increase in the GR response. Hold the tool at this depth while pumping at the equilibrium pressure and rate.

SUBMITTING THE RESULTS:

An interpretation of the logging results must be supplied when submitting the data for EPA approval. The interpretation must include a fluid loss profile across the perforations, in increments of at least 25%

Include a schematic diagram of the well construction on or with the log. The diagram should show the casing diameters and depths, tubing diameter and depth, perforated interval, any open hole intervals, tot depth or plugged back total depth, and the location of the tool when the slug was injected. Also, indicate with arrows the pathway(s) the tracer slug appears to have gone.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

TEMPERATURE LOGGING FOR MECHANICAL INTEGRITY

January 12, 1999

PURPOSE:

The purpose of this document is to provide a guideline for the acquisition of temperature surveys, a procedure that may be used to determine the internal mechanical integrity of tubing and casing in an injection well. A temperature survey may be used to verify confinement of injected fluids within the injection formation.

LOGGING PROCEDURE

Run the temperature survey while going into the hole, with the temperature sensor located as close to the bottom of the tool as possible. The tool need not be centralized.

Record temperatures a 1-5 °F per inch, on a 5 inches per 100 feet log scale.

Logging speed should be within 20 - 30 feet per minute.

Run the log from ground level to total depth (or plug-back depth) of the well.

When using digital logging equipment, use the highest digital sampling rate as possible. Filtering should be kept to a minimum so that small scale results are obtained and preserved.

Record the first log trace while injecting at up to the maximum allowed injection pressure. Subsequent to the temperature survey, the maximum injection pressure will be limited to the pressure used during the survey.

LOG TRACES

Log the first log trace while the well is actively injecting, and record traces for gamma ray, temperature, and differential temperature.

Shut-in (not injecting) temperature curves should be recorded at intervals depending on the length of time that the injection well has been active. Preferred time intervals are shown in the following table:

Active Injection	Record Curves at These Times (In Hours)				
1 month	1	3	6	12	
6 months	1	6	10-122	22-24	
1 year	1	10-12	22-24	45-48	
5 years	1	10-12	22-24	45-48	90-96
10 years or more	1	22-24	45-48	90-96	186-192



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
<http://www.blm.gov>



IN REPLY REFER TO:
3106
(UT-924)

September 16, 2004

Memorandum

To: Vernal Field Office

From: Acting Chief, Branch of Fluid Minerals

Subject: Merger Approval

Attached is an approved copy of the name change recognized by the Utah State Office. We have updated our records to reflect the merger from Inland Production Company into Newfield Production Company on September 2, 2004.

Michael Coulthard
Acting Chief, Branch of
Fluid Minerals

Enclosure

1. State of Texas Certificate of Registration

cc: MMS, Reference Data Branch, James Sykes, PO Box 25165, Denver CO 80225
State of Utah, DOGM, Attn: Earlene Russell, PO Box 145801, SLC UT 84114
Teresa Thompson
Joe Incardine
Connie Seare

UTSL-	15855	61052	73088	76561	
071572A	16535	62848	73089	76787	
065914	16539	63073B	73520A	76808	
	16544	63073D	74108	76813	
	17036	63073E	74805	76954	63073X
	17424	63073O	74806	76956	63098A
	18048	64917	74807	77233	68528A
UTU-	18399	64379	74808	77234	72086A
	19267	64380	74389	77235	72613A
02458	26026A	64381	74390	77337	73520X
03563	30096	64805	74391	77338	74477X
03563A	30103	64806	74392	77339	75023X
04493	31260	64917	74393	77357	76189X
05843	33992	65207	74398	77359	76331X
07978	34173	65210	74399	77365	76788X
09803	34346	65635	74400	77369	77098X
017439B	36442	65967	74404	77370	77107X
017985	36846	65969	74405	77546	77236X
017991	38411	65970	74406	77553	77376X
017992	38428	66184	74411	77554	78560X
018073	38429	66185	74805	78022	79485X
019222	38431	66191	74806	79013	79641X
020252	39713	67168	74826	79014	80207X
020252A	39714	67170	74827	79015	81307X
020254	40026	67208	74835	79016	
020255	40652	67549	74868	79017	
020309D	40894	67586	74869	79831	
022684A	41377	67845	74870	79832	
027345	44210	68105	74872	79833	
034217A	44426	68548	74970	79831	
035521	44430	68618	75036	79834	
035521A	45431	69060	75037	80450	
038797	47171	69061	75038	80915	
058149	49092	69744	75039	81000	
063597A	49430	70821	75075		
075174	49950	72103	75078		
096547	50376	72104	75089		
096550	50385	72105	75090		
	50376	72106	75234		
	50750	72107	75238		
10760	51081	72108	76239		
11385	52013	73086	76240		
13905	52018	73087	76241		
15392	58546	73807	76560		



Office of the Secretary of State

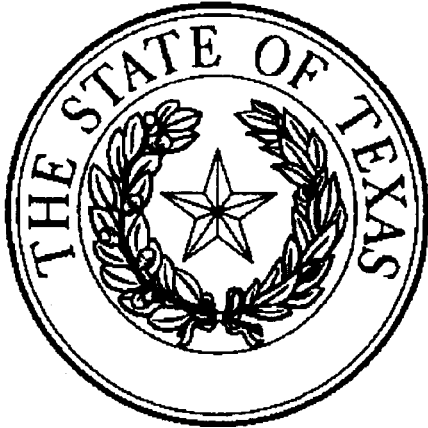
The undersigned, as Secretary of State of Texas, does hereby certify that the attached is a true and correct copy of each document on file in this office as described below:

Newfield Production Company
Filing Number: 41530400

Articles of Amendment

September 02, 2004

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 10, 2004.



A handwritten signature in black ink, appearing to read "G. Connor".

Secretary of State

ARTICLES OF AMENDMENT
TO THE
ARTICLES OF INCORPORATION
OF
INLAND PRODUCTION COMPANY

FILED
In the Office of the
Secretary of State of Texas
SEP 02 2004
Corporations Section

Pursuant to the provisions of Article 4.04 of the Texas Business Corporation Act (the "TBCA"), the undersigned corporation adopts the following articles of amendment to the articles of incorporation:

ARTICLE 1 – Name

The name of the corporation is Inland Production Company.

ARTICLE 2 – Amended Name

The following amendment to the Articles of Incorporation was approved by the Board of Directors and adopted by the shareholders of the corporation on August 27, 2004.

The amendment alters or changes Article One of the Articles of Incorporation to change the name of the corporation so that, as amended, Article One shall read in its entirety as follows:

"ARTICLE ONE – The name of the corporation is Newfield Production Company."

ARTICLE 3 – Effective Date of Filing

This document will become effective upon filing.

The holder of all of the shares outstanding and entitled to vote on said amendment has signed a consent in writing pursuant to Article 9.10 of the TBCA, adopting said amendment, and any written notice required has been given.

IN WITNESS WHEREOF, the undersigned corporation has executed these Articles of Amendment as of the 1st day of September, 2004.

INLAND RESOURCES INC.

By: Susan G. Riggs
Susan G. Riggs, Treasurer

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number See Attached List		API Number
Location of Well		Field or Unit Name See Attached List
Footage :	County :	Lease Designation and Number
QQ, Section, Township, Range:		State : UTAH

EFFECTIVE DATE OF TRANSFER: 9/1/2004

CURRENT OPERATOR

Company: Inland Production Company
 Address: 1401 17th Street Suite 1000
city Denver state Co zip 80202
 Phone: (303) 893-0102
 Comments:

Name: Brian Harris
 Signature: *Brian Harris*
 Title: Engineering Tech.
 Date: 9/15/2004

NEW OPERATOR

Company: Newfield Production Company
 Address: 1401 17th Street Suite 1000
city Denver state Co zip 80202
 Phone: _____
 Comments:

Name: Brian Harris
 Signature: *Brian Harris*
 Title: Engineering Tech.
 Date: 9/15/2004

(This space for State use only)

Transfer approved by:

Title:

Approval Date:

Comments:

Note: Indian Country wells will require EPA approval.

RECEIVED

SEP 20 2004

DIV. OF OIL, GAS & MINING

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH

2. CDW

3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

X Operator Name Change**Merger**

The operator of the well(s) listed below has changed, effective:

9/1/2004

FROM: (Old Operator):
 N5160-Inland Production Company
 Route 3 Box 3630
 Myton, UT 84052
 Phone: 1-(435) 646-3721

TO: (New Operator):
 N2695-Newfield Production Company
 Route 3 Box 3630
 Myton, UT 84052
 Phone: 1-(435) 646-3721

CA No.

Unit:

BLACKJACK (GR)

WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	
TAR SANDS FED 4-33	33	080S	170E	4301331664	12704	Federal	OW	P	
TAR SANDS FED 5-33	33	080S	170E	4301331665	12704	Federal	WI	A	
TAR SANDS FED 12-33	33	080S	170E	4301331757	12704	Federal	OW	P	
TAR SANDS FED 6-33	33	080S	170E	4301331814	12704	Federal	OW	P	
TAR SANDS FED 7-33	33	080S	170E	4301331860	12704	Federal	WI	A	
TAR SANDS FED 11-33	33	080S	170E	4301331861	12704	Federal	WI	A	
TAR SANDS FED 10-33	33	080S	170E	4301331884	12704	Federal	OW	P	
TAR SANDS FED 15-33	33	080S	170E	4301331890	12704	Federal	OW	P	
FEDERAL 24-3Y	03	090S	170E	4301331397	12704	Federal	WI	A	
MON FED 14-3-9-17Y	03	090S	170E	4301331535	12704	Federal	OW	P	
PAIUTE FED 32-4R-9-17	04	090S	170E	4301330674	12704	Federal	NA	DRL	K
FEDERAL 44-4Y	04	090S	170E	4301331452	12704	Federal	WI	A	
ALLEN FED 43-5R-9-17	05	090S	170E	4301330720	12704	Federal	NA	DRL	K
MON FED 31-5-9-17	05	090S	170E	4301331680	12704	Federal	WI	A	
FEDERAL 31R-9H	09	090S	170E	4301331107	12704	Federal	WI	A	
CASTLE DRAW 10-10-9-17	10	090S	170E	4301330684	12704	Federal	OW	P	
CASTLE DRAW 14-10	10	090S	170E	4301330994	12704	Federal	OW	P	
FEDERAL 22-10Y	10	090S	170E	4301331395	12704	Federal	WI	A	
BALCRON MON FED 12-10-9-17Y	10	090S	170E	4301331536	12704	Federal	OW	P	
BALCRON MON FED 21-10-9-17Y	10	090S	170E	4301331537	12704	Federal	OW	P	

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 9/15/20042. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 9/15/20043. The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 2/23/2005

4. Is the new operator registered in the State of Utah: YES Business Number: 755627-0143

5. If NO, the operator was contacted on:

6a. (R649-9-2)Waste Management Plan has been received on: IN PLACE
6b. Inspections of LA PA state/fee well sites complete on: waived

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM BIA

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: na/

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 2/23/2005

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 2/28/2005
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 2/28/2005
3. Bond information entered in RBDMS on: 2/28/2005
4. Fee/State wells attached to bond in RBDMS on: 2/28/2005
5. Injection Projects to new operator in RBDMS on: 2/28/2005
6. Receipt of Acceptance of Drilling Procedures for APD/New on: waived

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UT 0056

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 61BSBDH2912

FEE & STATE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 61BSBDH2919
2. The **FORMER** operator has requested a release of liability from their bond on: n/a*
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

*Bond rider changed operator name from Inland Production Company to Newfield Production Company - received 2/23/05

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTU77234

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:
BLACKJACK UNIT

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER ☐ Injection well ☐

8. WELL NAME and NUMBER:
TAR SANDS FED 7-33

2. NAME OF OPERATOR:
Newfield Production Company

9. API NUMBER:
4301331860

3. ADDRESS OF OPERATOR:
Route 3 Box 3630 CITY Myton STATE UT ZIP 84052

PHONE NUMBER
435.646.3721

10. FIELD AND POOL, OR WILDCAT:
Monument Butte

4. LOCATION OF WELL:
FOOTAGES AT SURFACE: 1943 FNL 2009 FEL

COUNTY: Duchesne

OTR/OTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SW/NE, 33, T8S, R17E

STATE: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF ACTION SubDate

TYPE OF SUBMISSION

TYPE OF ACTION

☐ NOTICE OF INTENT
(Submit in Duplicate)

Approximate date work will

☒ SUBSEQUENT REPORT
(Submit Original Form Only)

Date of Work Completion:

11/02/2005

☐ ACIDIZE

☐ ALTER CASING

☐ CASING REPAIR

☐ CHANGE TO PREVIOUS PLANS

☐ CHANGE TUBING

☐ CHANGE WELL NAME

☐ CHANGE WELL STATUS

☐ COMMINGLE PRODUCING FORMATIONS

☐ CONVERT WELL TYPE

☐ DEEPEN

☐ FRACTURE TREAT

☐ NEW CONSTRUCTION

☐ OPERATOR CHANGE

☐ PLUG AND ABANDON

☐ PLUG BACK

☐ PRODUCTION (START/STOP)

☐ RECLAMATION OF WELL SITE

☐ RECOMPLETE - DIFFERENT FORMATION

☐ REPERFORATE CURRENT FORMATION

☐ SIDETRACK TO REPAIR WELL

☐ TEMPORARILY ABANDON

☐ TUBING REPAIR

☐ VENT OR FLAIR

☐ WATER DISPOSAL

☐ WATER SHUT-OFF

☒ OTHER: - 5 Year MIT

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 10/4/05 Nathan Wiser with the EPA was contacted concerning the 5-year MIT on the above listed well. Permission was given at that time to perform the test on 11/2/05. On 11/2/05 the csg was pressured up to 1090 psig and charted for 30 minutes with 0 psi pressure loss. The well was injecting during the test. The tbq pressure was 1340 psig during the test. There was not an EPA representative available to witness the test. API# 43-013-31860. EPA# UT 20952-04516

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT) Callie Duncan

TITLE Production Clerk

SIGNATURE

Callie Duncan

DATE 11/07/2005

(This space for State use only)

RECEIVED

NOV 08 2005

DIV. OF OIL, GAS & MINING

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: 7/10/2005
Test conducted by: Dale Giles
Others present: _____

Well Name: <u>Tar Sands Fed. 7-33-8-17</u>		Type: <u>ER SWD</u>	Status: <u>AC TA UC</u>
Field: <u>Black Jack Unit</u>			
Location: _____	Sec: <u>33</u>	T <u>8</u> N <u>10</u> R <u>17</u> E / W	County: <u>Duchesne</u> State: <u>Ut.</u>
Operator: <u>Newfield Production Co.</u>			
Last MIT: <u>1</u> / <u>1</u> / _____	Maximum Allowable Pressure: <u>1340</u>		PSIG

Is this a regularly scheduled test? ☒ Yes ☐ No
Initial test for permit? ☐ Yes ☐ No
Test after well rework? ☐ Yes ☐ No
Well injecting during test? ☒ Yes ☐ No If Yes, rate: 26 bpd

Pre-test casing/tubing annulus pressure: 0 psig

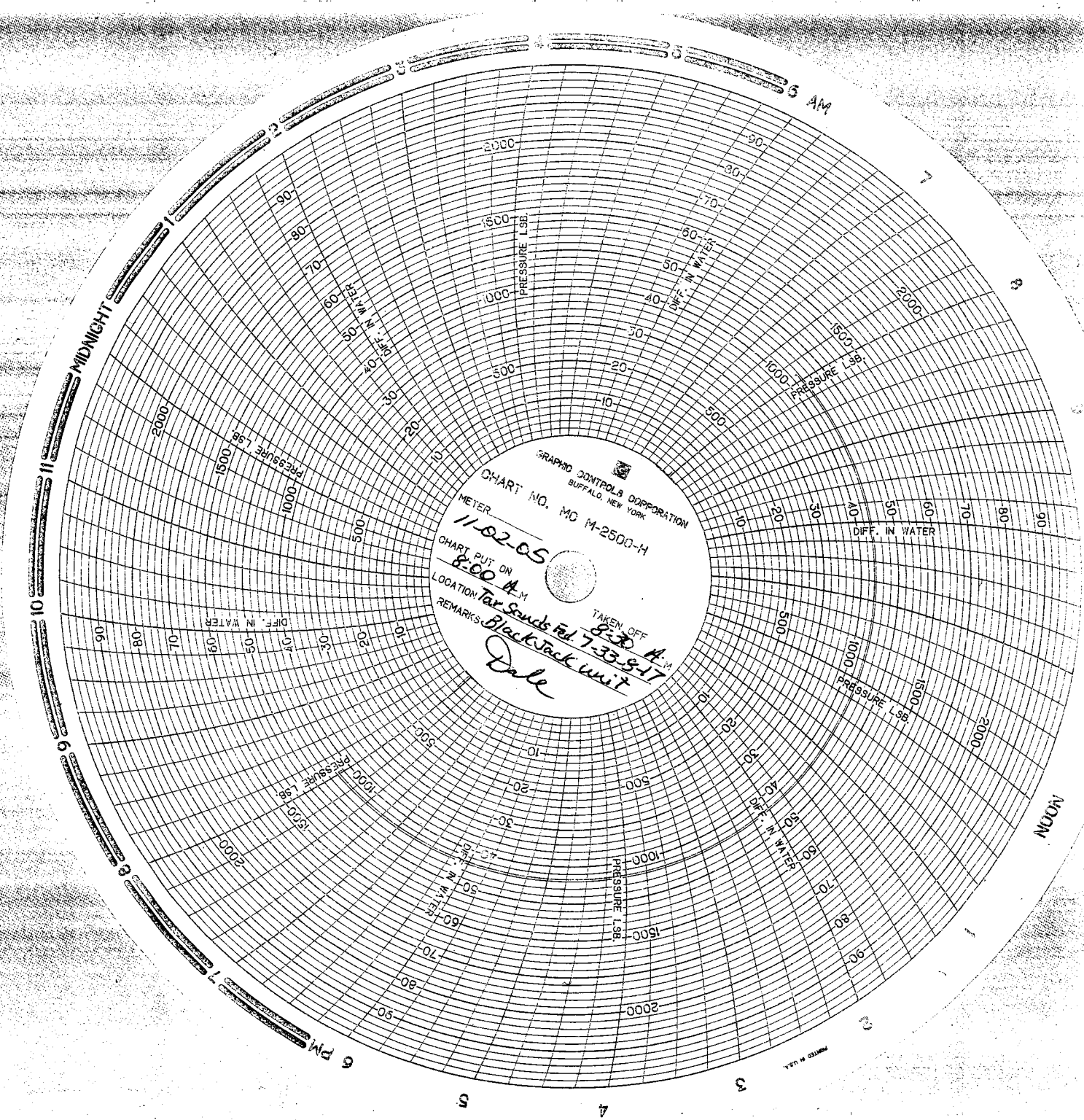
MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	<u>1340</u> psig	psig	psig
End of test pressure	<u>1340</u> psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	<u>1090</u> psig	psig	psig
5 minutes	<u>1090</u> psig	psig	psig
10 minutes	<u>1090</u> psig	psig	psig
15 minutes	<u>1090</u> psig	psig	psig
20 minutes	<u>1090</u> psig	psig	psig
25 minutes	<u>1090</u> psig	psig	psig
30 minutes	<u>1090</u> psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test? ☐ Yes ☒ No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: _____



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:
U-77234

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ OTHER

2. NAME OF OPERATOR:
NEWFIELD PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 PHONE NUMBER 435.646.3721

4. LOCATION OF WELL:
FOOTAGES AT SURFACE: 1943 FNL 2009 FEL

OTR/OTR. SECTION TOWNSHIP. RANGE. MERIDIAN: SWNE, 33, T8S, R17E

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:
BLACKJACK UNIT

8. WELL NAME and NUMBER:
TAR SANDS 7-33-8-17

9. API NUMBER:
4301331860

10. FIELD AND POOL, OR WILDCAT:
MONUMENT BUTTE

COUNTY: DUCHESNE

STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will 	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/STOP) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLAIR <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input checked="" type="checkbox"/> OTHER: - Step Rate Test
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 07/18/2006			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

A step rate test was conducted on the subject well on June 2, 2006. Results from the test indicate that the fracture gradient is .773 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed to 1490 psi.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD

NAME (PLEASE PRINT) Cheyenne Bateman

TITLE Well Analyst Foreman

SIGNATURE



DATE 07/18/2006

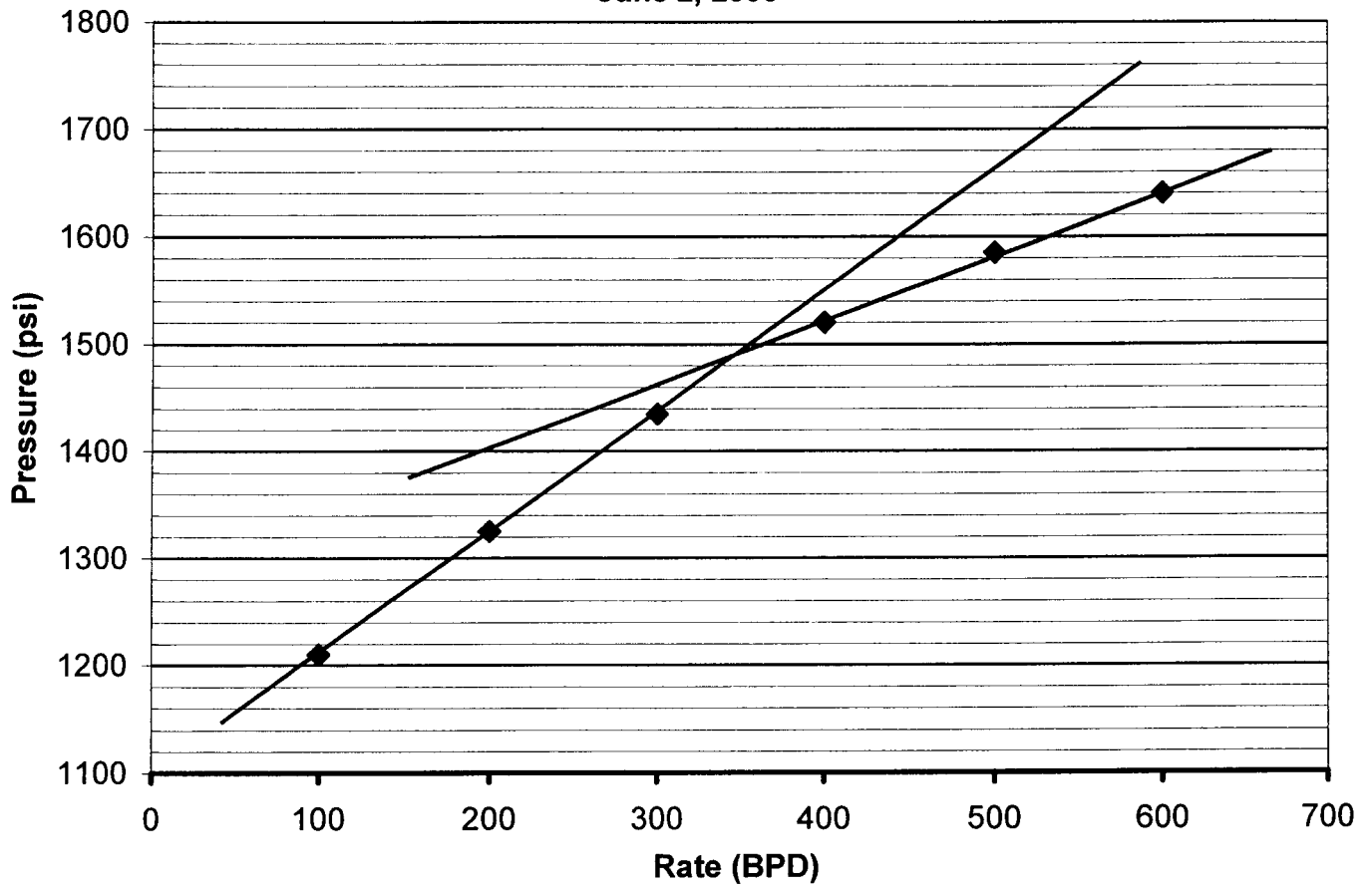
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RECEIVED

JUL 20 2006

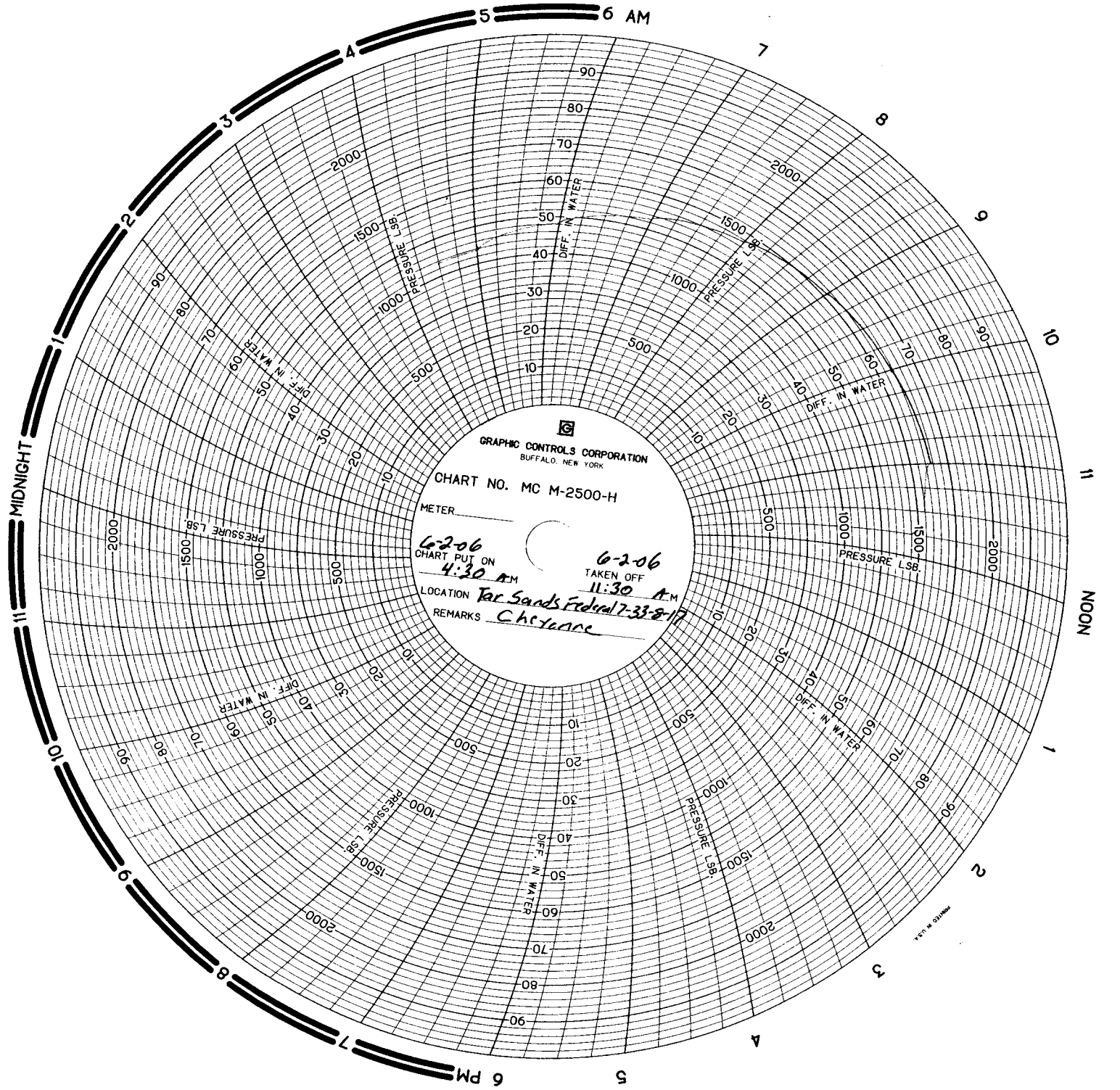
DIV. OF OIL, GAS & MINING

Tar Sands Federal 7-33-8-17
Blackjack Unit
Step Rate Test
June 2, 2006



Start Pressure: 1085 psi
Instantaneous Shut In Pressure (ISIP): 1615 psi
Top Perforation: 4406 feet
Fracture pressure (P_{fp}): 1490 psi
FG: 0.773 psi/ft

Step	Rate(bpd)	Pressure(psi)
1	100	1210
2	200	1325
3	300	1435
4	400	1520
5	500	1585
6	600	1640



MIDNIGHT

NOON

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STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:
USA UTU-77234

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ OTHER

2. NAME OF OPERATOR:
NEWFIELD PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 PHONE NUMBER 435.646.3721

4. LOCATION OF WELL:

FOOTAGES AT SURFACE: 1943 FNL 2009 FEL

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:
GMBU

8. WELL NAME and NUMBER:
TAR SANDS FED 7-33

9. API NUMBER:
4301331860

10. FIELD AND POOL, OR WILDCAT:
GREATER MB UNIT

COUNTY: DUCHESNE

OTR/OTR. SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE, 33, T8S, R17E

STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON	
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 09/28/2010	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Five Year MIT	
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION		

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 09/13/2010 Nathan Wiser with the EPA was contacted concerning the 5 year MIT on the above listed well. On 09/28/2010 the casing was pressured up to 1330 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 1105 psig during the test. There was not an EPA representative available to witness the test.

EPA# UT20952-04516 API# 43-013-31860

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT) Lucy Chavez-Naupoto

TITLE Administrative Assistant

SIGNATURE



DATE 09/29/2010

(This space for State use only)

RECEIVED

OCT 04 2010

DIV. OF OIL, GAS & MINING

Mechanical Integrity Test
Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: 9 128 110
Test conducted by: Rusty Bird
Others present: _____

Well Name: <u>Tar sands federal</u>	7-33-8-17	Type: ER SWD	Status: AC TA UC
Field: <u>Monument Butte</u>			
Location: <u>SW/NE</u>	Sec: <u>33</u>	T <u>8</u> N <u>10</u> R <u>17</u> E/W	County: <u>Duchesne</u> State: <u>ut</u>
Operator: <u>Newfield</u>			
Last MIT: _____ / _____ / _____		Maximum Allowable Pressure: <u>1490</u>	PSIG

Is this a regularly scheduled test? ☒ Yes ☐ No
Initial test for permit? ☐ Yes ☒ No
Test after well rework? ☐ Yes ☒ No
Well injecting during test? ☐ Yes ☒ No If Yes, rate: 0 bpd

Pre-test casing/tubing annulus pressure: 0 psig

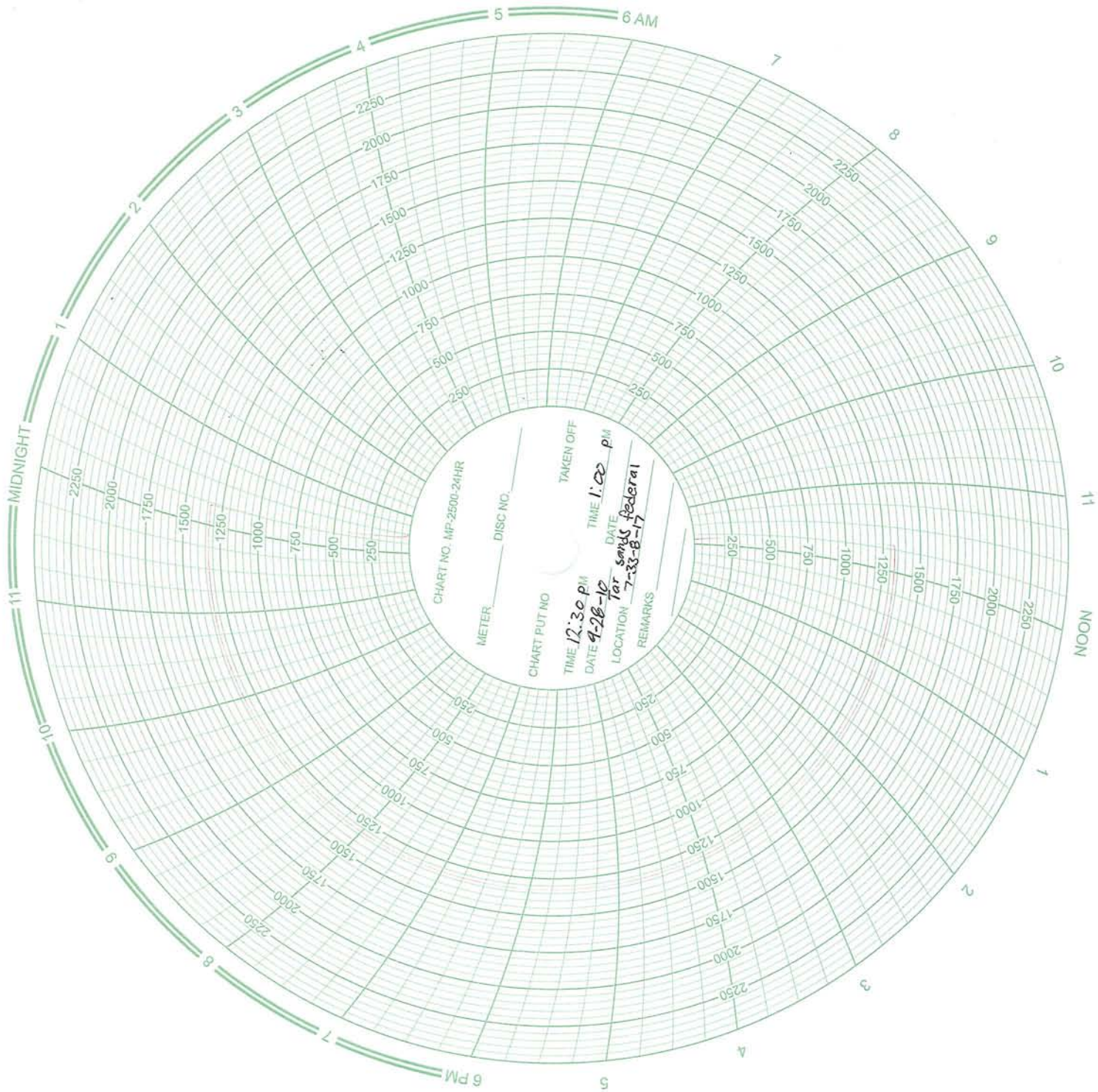
MIT DATA TABLE		Test #1	Test #2	Test #3
TUBING		PRESSURE		
Initial Pressure	<u>1105</u>	psig	psig	psig
End of test pressure	<u>1105</u>	psig	psig	psig
CASING / TUBING		ANNULUS PRESSURE		
0 minutes	<u>1330</u>	psig	psig	psig
5 minutes	<u>1330</u>	psig	psig	psig
10 minutes	<u>1330</u>	psig	psig	psig
15 minutes	<u>1330</u>	psig	psig	psig
20 minutes	<u>1330</u>	psig	psig	psig
25 minutes	<u>1330</u>	psig	psig	psig
30 minutes	<u>1330</u>	psig	psig	psig
_____ minutes		psig	psig	psig
_____ minutes		psig	psig	psig
RESULT	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test ? ☐ Yes ☒ No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: Rusty Bird



STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-77234
1. TYPE OF WELL Water Injection Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052		8. WELL NAME and NUMBER: TAR SANDS FED 7-33
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1943 FNL 2009 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 33 Township: 08.0S Range: 17.0E Meridian: S		9. API NUMBER: 43013318600000
PHONE NUMBER: 435 646-4825 Ext		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
COUNTY: DUCHESNE		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 8/25/2015	<input checked="" type="checkbox"/> OTHER	
<input type="checkbox"/> SPUD REPORT Date of Spud:	OTHER: 5 YR MIT	
<input type="checkbox"/> DRILLING REPORT Report Date:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. 5 YR MIT performed on the above listed well. On 08/25/2015 the casing was pressured up to 1199 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbq pressure was 1493 psig during the test. There was not an EPA representative available to witness the test. EPA #UT22197-04516		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 27, 2015		
NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 8/26/2015	

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____

Date: 8 / 25 / 2015Test conducted by: Shannon Hazenby

Others present: _____

Well Name: <u>Tar Sands Federal 7-33-8-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Greater Monument Butte</u>		
Location: <u>7-33-8-17</u> Sec: <u>33</u> T <u>85</u> N/S R <u>17</u> E/W County: <u>Duchesne</u> State: <u>ut</u>		
Operator: <u>Shannon Hazenby</u>		
Last MIT: <u> </u> / <u> </u> / <u> </u>	Maximum Allowable Pressure: <u>1540</u>	P SIG

Is this a regularly scheduled test? ☒ Yes ☐ No
 Initial test for permit? ☐ Yes ☐ No
 Test after well rework? ☐ Yes ☐ No
 Well injecting during test? ☐ Yes ☒ No If Yes, rate: 1540 bpd

Pre-test casing/tubing annulus pressure: 0/1493 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	<u>1493</u> psig	psig	psig
End of test pressure	<u>1493</u> psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	<u>1199.6</u> psig	psig	psig
5 minutes	<u>1199.4</u> psig	psig	psig
10 minutes	<u>1199.6</u> psig	psig	psig
15 minutes	<u>1199.4</u> psig	psig	psig
20 minutes	<u>1199.2</u> psig	psig	psig
25 minutes	<u>1199.2</u> psig	psig	psig
30 minutes	<u>1199.0</u> psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

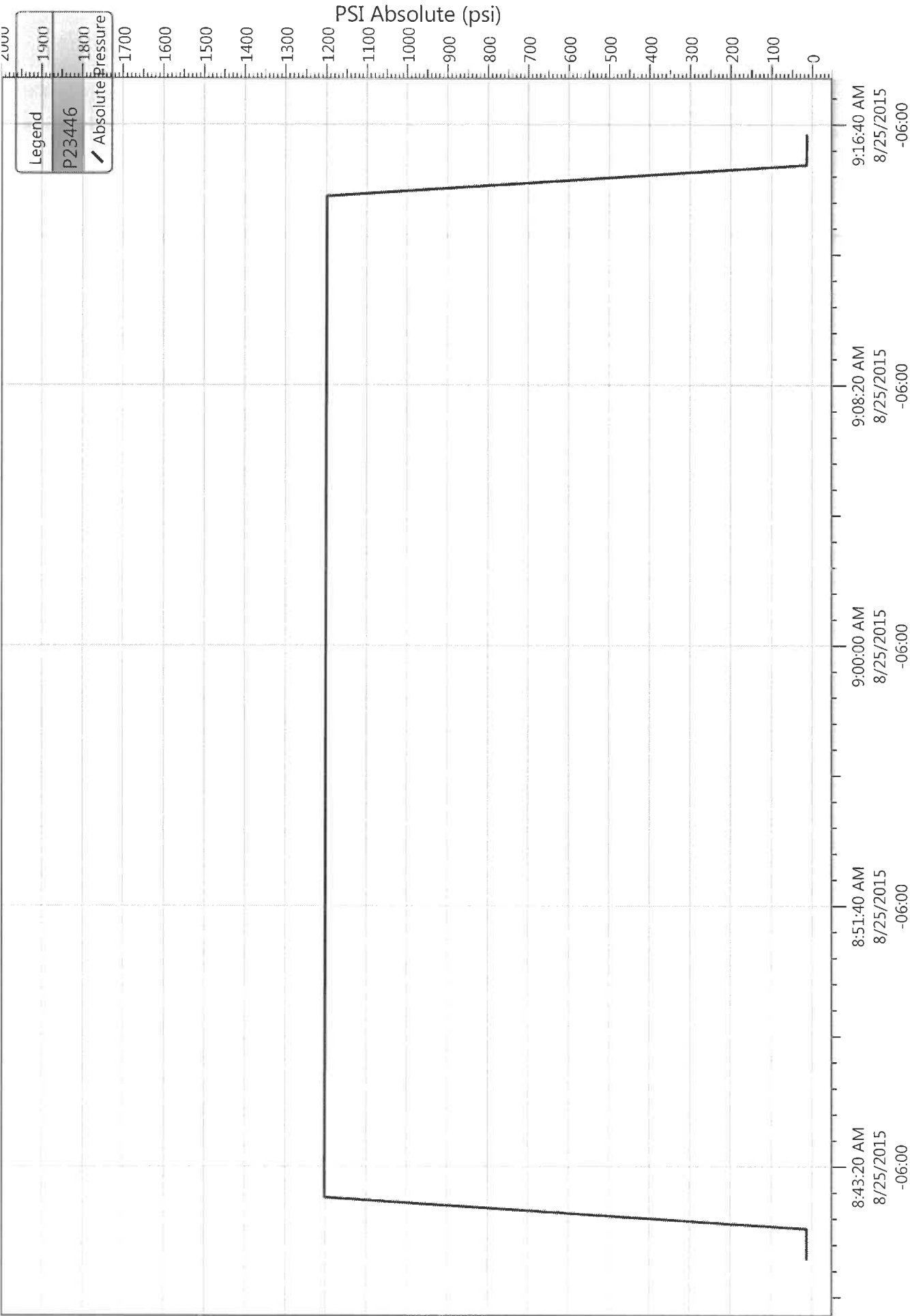
Does the annulus pressure build back up after the test? ☐ Yes ☐ No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: _____

7-33-8-17 5 year MIT
8/25/2015 8:38:37 AM



Tar Sands Federal 7-33-8-17

Spud Date: 4/28/97
Put on Production: 11/22/97
GL: 5113' KB: 5126' (13'KB)

Initial Production: 101 BOPD;
90 MCFD; 0 BWPD

Injection Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"
GRADE: J-55
WEIGHT: 24#
LENGTH: 7 jts. (290.48')
DEPTH LANDED: 288.56' GL
HOLE SIZE: 12-1/4"
CEMENT DATA: 120 sxs Premium cmt, est 8 bbls to surf

PRODUCTION CASING

CSG SIZE: 5-1/2"
GRADE: J-55
WEIGHT: 15.5#
LENGTH: 137 jts. (5878')
HOLE SIZE: 7-7/8"
CEMENT DATA: 295 sxs Hibond mixed & 255 sxs thixotropic
CEMENT TOP AT:
SET AT: 5877'

TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#
NO. OF JOINTS: 139 jts (4346.98')
SEATING NIPPLE: 2-7/8"
SN LANDED AT: 4,348'
PACKER: 4,351'
TOTAL STRING LENGTH: EOT @ 4,355'

FRAC JOB

11/14/97 5705'-5776' Frac CP sand as follows:
95,300# 20/40 sand in 513 bbls of
Delta frac. Breakdown @ 2516 psi, treated
@ avg rate 28.1 bpm w/avg press of 1550
psi. ISIP-1791 psi. 5-min 1665 psi. Start
flowback on 12/64" ck for 3-1/2 hrs and
died.

11/17/97 5100'-5187' Frac B sand as follows:
115,300# of 20/40 sand in 555 bbls of
Delta frac. Breakdown @ 2340 psi.
Treated @ avg rate 26 bpm w/avg press
of 1730 psi. ISIP-2156 psi. 5-min 2027 psi.
Start flowback on 12/64" ck for 4 hrs &
died.

11/19/97 4406'-4419' Frac GB sand as follows:
88,300# of 20/40 sand in 457 bbls of
Delta frac. Breakdown @ 3024 psi.
Treated @ avg rate 24.1 bpm w/avg press
of 1800 psi. ISIP-2205 psi. 5-min 2137 psi.
Start flowback on 12/64" ck for 3 hrs &
died.

11/18/00 Convert to Injection well
11/20/00 Conversion MIT Finalized
11/7/05 5 Year MIT Completed
09/28/10 5 YR MIT

Cement top

Packer @ 4,351'
EOT @ 4355'

4406'-19'

5100'-07'

5181'-87'

5705'-08'

5711'-19'

5766'-70'

5772'-76'

SN @ 4,348'KB
EOT @ 4,355'KB
PBTD @ 5835'
TD @ 5877'

Sd Top @ 5820'
10/7/99

PERFORATION RECORD

11/14/97	5705'-5708'	4 JSFP	12 holes
11/14/97	5711'-5719'	4 JSFP	32 holes
11/14/97	5766'-5770'	4 JSFP	16 holes
11/14/97	5772'-5776'	4 JSFP	16 holes
11/16/97	5100'-5107'	4 JSFP	28 holes
11/16/97	5181'-5187'	4 JSFP	24 holes
11/19/97	4406'-4419'	4 JSFP	52 holes

NEWFIELD

Tar Sands Federal 7-33-8-17
1943 FNL 2009 FEL
SWNE Section 33-T8S-R17E
Duchesne Co, Utah
API #43-013-31860; Lease #U-77234